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THE AMERICAN School Board Journal

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★ **For Next Fall — Wanted 250,000 School Teachers**

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VOLUME 104, NUMBER 5 MAY, 1942

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The contents of this issue are listed in the "Education Index."

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SCHOOLS VICTORY'S STRONGEST ALLY

The schools of this country are playing a part in the present world war which has established them as the first line of civilian defense. Never in any previous conflict engaged in by the nation have the schools made a more substantial contribution to that unity of action and national efficiency upon which our safety and perpetuity as a nation rests. The school administrators everywhere in this country have been alert to the emergency that confronts them and to the task that lies before them. The following illuminating paragraphs appear in the recent Bruce's Market Letter:

"The call to action in the National Defense Program found the schools in readiness, and millions of persons have already been prepared in our vocational schools for wartime industrial production. During World War No. 1 some 60,000 persons were given training in the school shops for war production. Since July 1, 1940, when the first federal aid was given to schools to do this training job, over 2,500,000 persons have been given defense job training. Defense job training has now become a vital wartime service. Many vocational schools are operating on a 24-hour a day basis. The expansion of school shop facilities, the establishing of new shops, the extension and co-ordination of this instructional work to provide skilled operators for vital war industries, has given a dynamic impetus to this important work and placed a tremendous responsibility on the educational forces. And now the industrial-arts departments are building 500,000 model aircraft to scale, for the U. S. Navy, Bureau of Aeronautics.

"Not only in the industrial arts and vocational education departments but in every level of instruction, and in defense areas in the urban as well as in the rural schools, the educational program has and is being quickly adjusted to wartime needs and requirements. Civilian defense is centering in the school and the educational forces are directing their services to cover all the wartime community needs."

The several forces extending from the Federal Office of Education at Washington, down to the educational leaders throughout the Nation, including every local board of education, superintendents, and teaching personnel have grasped the situation and set in motion all the ingenuity and energy at their command.

Thus, in the language of the above-mentioned letter, "Federal authorities, our armed forces, our industrial forces, and our citizenship, recognize the vital role of the schools and the fact that the basic program of education must continue in full operation if the schools are to render their most effective services."

Every school system must act in the light of local conditions but the main objective must be the same everywhere.

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THE AMERICAN
School Board Journal

Volume 104, No. 5 MAY, 1942 Subscription, $3.00 the Year

Gearing the Secondary School Into the War Effort

Oliver L. Rapp[1]

When our schools closed on Friday, December 5, they had many educational goals, and followed many roads to achieve their educational purposes. When schools opened on Monday, December 8, they had one dominating purpose — that was to help win the war. High school students clamored for action to further the war effort of their country and looked to their teachers for guidance. Schools are one of the nation's strongest arms of defense or attack. High school students do not necessarily shoulder arms nor do teachers turn their pointers into bayonets in their efforts to win this war.

Education as usual will neither be possible nor desirable. Every activity in the school may be considered as related to the war effort; *now* we must decide not only what is important, but also what is of *first* importance. Priority in education, as well as priority in business, must be established. Without abandoning the essential services of the schools, the appropriate war duties of the schools should be given absolute and immediate priority in time, attention, personnel, and funds over all other activities.

[1]Captain, United States Army, Sixth Corps Area Headquarters, Chicago, Abstract of an address.

Eight Important Priorities

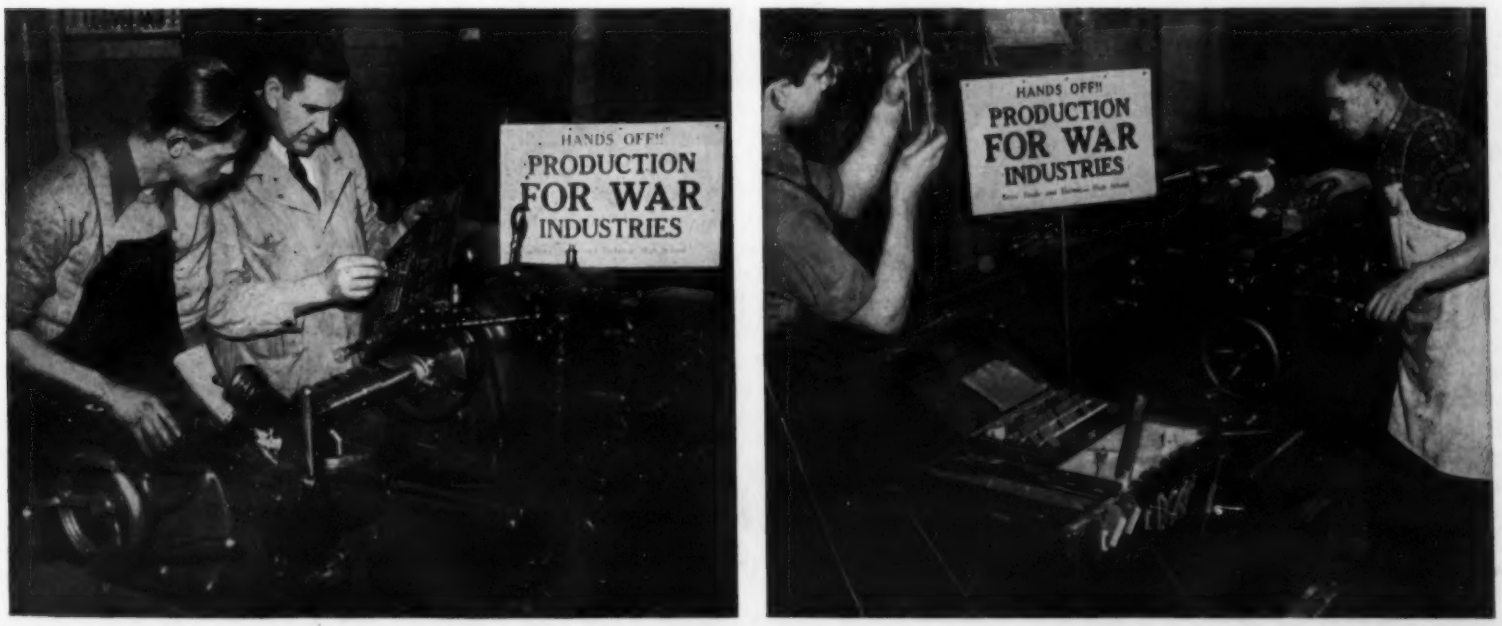
I shall mention several priorities:

1. *Priority in Training Workers for War Industries and Service.* Man power must be trained for the military and for the factory. We are going to take several million men out of war industries, and put them into the military forces. We aim to have 3,600,000 men under arms by December, 1942. Prior to January 1, 1942, we succeeded in getting only 5,000,000 men at work in all war industries of this nation. *If we are going to meet the goals that the President has set,* we must get 5,000,000 in this six months, 5,000,000 in the next six months, and 5,000,000 in the next six months. In other words, 18 months from now we must have 20,000,000 instead of 5,000,000 workers in war industries. There is one great source from which those workers may come, and there is only one source, and that source is women — and men under and above the troop age.

Since the war is in a large part a contest of production, and may extend over a period of years, it is important to continue the vocational training of all youth — girls, too, are included, particularly in basic mechanical skills which are common to many industrial operations.

So in the months ahead we must train women and men of many ages and at all hours to work on airplanes, on guns, on ships, and on tanks. Secondary schools and colleges must train them. They have already trained 1,776,000 in the past 18 months in 500 secondary schools compared with 61,000 during World War I.

2. *Priority in Teaching Issues, Aims, and Progress of the War.* Our high schools are *not to be turned into vocational schools.*



Few High Schools can hope to do direct production work for one of the war industries, as has the Boys Technical High School, Milwaukee, but every high school can gear its industrial arts work into training for a war effort.

General education is certainly important. Youth must know something about this war; he should know the issues, the aims, and the progress of this *battle for democracy.*

Teach War As Current History

Teach the *war itself as current history.* Let there be a definite time and place in the school program for orderly, intelligent study of this *important period* in all of our lives. It makes the resources of scholarship illuminate the headlines of the day, *and lays the basis for better understanding and wiser action on the part of all of us.*

Business and government have already lengthened the work week. Some schools have felt that they ought to *discontinue "business as usual"* in the operation of their schedules and have added an extra period once or twice a week for discussion of "What the War Means to Us." It *demonstrates* to the community that the school is in earnest in undertaking the responsibility for enlightenment for wartime problems.

Social studies courses of many high schools are putting less time on the study of the Greek and Roman civilization and making more time for the realistic study of *"What This War Means to Us — The Aims for Which We Fight — The Sacrifices That Will Be Required of Us — The Kind of Peace We Seek to Insure."* Perhaps other phases of education can be reduced or eliminated for the duration — you know best the various changes that can be made in your own school.

Calmly but forcefully young America must be taught that this is a life and death struggle for democracy — 7,000,000 youths can carry that message to the American home. As the President stated, too many Americans do not realize that we are at war. Official documents, such as the *Four Freedoms* and the *Atlantic Charter,* should be adapted appropriately to the ages and abilities of students at various age levels and used as a basis for study. We should teach the *interdependence of the United States, Great Britain, the British Commonwealth, the Chinese Republic, Russia, and the Netherlands,* and the need for *full cooperation among them in waging the war.* We must teach that the continuation of democracy in the world is absolutely dependent upon defeat of the Axis powers.

The history, geography, and literature of the United States should be placed in a setting of the history of the world. Most textbooks will require extensive supplementation for this type of study. For teachers of American History, there are special opportunities for teaching *this war* by comparison with others. The circumstances leading to American involvement, the difficulties of maintaining neutrality, form of military recruiting and selective service adopted at different times in our history, the effect of aviation on warfare, military tactics, the changing role of civilians in warfare.

Schools Must Build Morale

3. *Morale Is Another Priority.* Morale is important — it must be maintained — it must be sustained. We will need to teach the hard lessons of patience and endurance for these qualities are required by the strategy of a long war. We must be prepared to wait without losing heart nor finding fault until we have built up sufficient superiority in men, machines, and materials. We, the American people, in our desire for prompt action and quick results, will find this a difficult and tedious lesson to master. Every teacher must set an example of calm resolution as he discusses the adverse events of the day with the students. Many students are burdened with dangerous misconceptions and errors regarding the war and its effects. Groundless fears should be discussed and be allayed by sympathetic mature judgment. This can reach millions of homes. To have a part in this World War II, high school students should be given an opportunity to participate in this war effort as a morale factor. They want to be a part of the world moving events — to share in the war effort. Our high school youth — 7,000,000 of them — can be given an important part to play in civilian defense, which leads to another priority.

Direct Pupil Help

4. *Producing Goods and Services Needed for the War.* The schools can aid in the (A) *Production of Food* by direct training in agriculture, and in tractor, truck, and farm machinery operation. They can teach and encourage:

1. Vocational agriculture
2. Vegetable gardens (Victory)
3. Dairy project
4. Poultry project
5. Small back-yard gardens
6. Glider club
7. Airplane clubs

The New York assembly has passed and sent to the governor a bill to facilitate the use of school children to harvest crops in New York State during school hours to relieve the shortage of farm labor. Approximately 20,000 school children did such work last fall under a temporary arrangement agreed to by the governor and legislative leaders. The new law provides that healthy school children over 14 years old may take time off from school for a maximum of a month to work on farms wherever the county agricultural defense committee certifies there is a shortage of labor. Rules and regulations for their labor shall be prepared by the state board of regents.

Schools can assist in the (B) *Preservation of Fruits and Vegetables.* This can be done through:

1. Homemaking classes organized to preserve fruits and vegetables.
2. Homemaking, first aid, in cooperation with the Red Cross.
3. Other kinds of clothing indicated by local Red Cross.

C. *Personal Services.* Schools and their pupils can render many services to local defense councils, selective service boards, Red Cross, and similar organized groups by acting as:

a) Messengers
b) Bond and Stamp salesmen
c) Filing clerks
d) Typists
e) Operating telephones
f) Entertainment programs at Churches and Hospitals

D. *Child Care Centers for Mothers Employed in War Industries* can be established in school buildings. Child care centers require adequate professional supervision. Plans should be laid now for utilizing the coming summer in the war effort, for which 1,000,000 teachers and 2,000,000 16-year-olds are available.

Health Through Physical Education

5. *Priority on Health Education Is Needed.* Health instruction in the schools should be maintained at full efficiency. Instruction in personal and public hygiene should reach high school youth. *"Fitness for service"* should be *utilized as a social motive* for this *area of learning.*

6. *Priority in Physical Education Is Essential.* Physical education adapted to the various ages and individual differences — not with the view of *learning sports or other recreational activities* but also to *correcting physical defects* and *building strength and vitality.* A fully effective intramural sports program for developing *intramural health, skill,* and *strength among all students* should be given *priority over competitions wherein active participation is limited to very few.* The Spalding Institute of Peoria, Ill., has eliminated interscholastic competition in baseball this spring and substituted intramural sports. This surely is a fine example of the ability to change with the times.

Draft rejections have been cited as an index to the nation's health. Alarmists cry that we have made no progress since the last war. The 1917 and 1940 draft rejections are not comparable for many reasons, because standards have been raised since 1917, because our diagnostic methods are more effective, because selections have been made more deliberately in 1940. Today the rejection rate is higher than that of the life-insurance companies. American youth is more fit to serve today than any other generation — thanks to educators for their health and physical-education efforts.

7. *Priority in Learning About the South American Countries.* The interests of the Americas are interwoven. The Americas are indispensable to one another. The Germans have carried on a very thorough program for the development of suspicion and dissension between the two Americas. We should understand our southern neighbors without attempting to change them. Our students should study the ways, customs, institutions, art, and music of the Latin Americas and the language of Spanish and Portuguese Americas. Cordell Hull advised in August of 1940 that we teach Spanish and Portuguese in our schools. Schools in large number have put in

(Concluded on page 72)

Cooperative Supervision as a Procedure in Problem Solving

Harl R. Douglass[1]

We have come a long way in supervision in recent years. Just which way, is not so clear. Supervision of a generation ago was in character authoritative and inspectional. Teachers were told what to do and they did it, and they were inspected to see if they were doing as they were told.

Whatever may have been the need for that type of supervision in the days of untrained teachers (and I may add parenthetically poorly trained supervisors), that need is no longer present. In that day, teachers were on the average no more than high school graduates with but a gesture at professional knowledge. Today in most states the average number of years of training above high school is very close to four. Most teachers have had a full half year of professional training as undergraduates, and a large and rapidly increasing proportion have gone on for graduate work in education.

The Passing of Authoritative Supervision

The authoritative type of supervision was never well accepted by teachers. Its value was too limited. The oracle who spoke the words of wisdom, knew too little of what he spoke. He begot little confidence, beyond that inspired in the more credulous and gullible, as the result of his air of authority. It was usually less inspiration, and more fear. Teachers were awed or cowed by verbal force. It was a form of professional respect and confidence that disappeared like a late spring snow before an early summer sun, as soon as the position of the teacher attained some little security. It had no basis in terms of recognition on the part of the teacher of service rendered her in the direction of improving her effectiveness.

When this farcical procedure, serving largely only to impress the teachers with the importance of the principal or superintendent, crumbled before the contempt of better trained teachers, more secure in their positions, two principal alternatives presented themselves. One of these was chosen in large numbers by the combination supervisor-administrator. He kept to his office, busied himself with administrative details, and rationalized his position with the statement that one shouldn't employ teachers who required supervision. If they were properly trained and competent, they needed little supervision. The teachers naturally encouraged this myth, particularly in the high school. They advanced the fallacious theory that a supervisor not well trained in a given subject could hardly hope to supervise teachers of that subject. The heavy pressure of administrative duties, pyramided by the development of guidance and extracurricular activities of various types, gave many high school principals no choice. In the elementary school a larger percentage of principals kept on with supervisory efforts. The supervisor being charged primarily, if not completely, with supervisory responsibilities, like many high school principals and superintendents, had no choice. If the old philosophy and methods of supervision were slipping, he must employ more effective ones, ones more suited to those being supervised and to the prevailing philosophy of education.

So it is that today we have in the schools no uniform practice or philosophy of supervision. In many schools no great effort is made at supervision. In a few, the old autocratic procedures and philosophy remain to remind us of a ridiculous past. In an ever increasing number, new types of supervision grow and develop. It goes by many names and it is indeed a different thing in almost every school.

A Partnership for Education

In all forms it possesses at least one common characteristic. "Cooperative Supervision" is a partnership. It is a joint undertaking. It is a group enterprise for the improvement of all, but the emphasis is not primarily upon improvement of the teacher but upon the attack of specific projects. The general improvement is a by-product.

By some it is called "democratic leadership"; by others, "teacher participation"; by still others, "self-supervision" or "utilization of teacher-creativeness." There are those who attempt to distinguish between these terms — but with little success. In time, different aspects of this trend toward a new means of mutual stimulation may come to possess more definitely discernible outlines, and more unique entities, but as yet they are part and parcel of the same thing.

Cooperative supervision may assume a multitude of forms. There would not be space here even to catalog all its possibilities. We can stop only to indicate and illustrate a few. In a small school, it may rather regularly take the form of round-table discussions, characterized by democratic atmosphere, and by the principle of alternate leadership. By alternate leadership is meant the concept of every teacher contributing ideas and suggestions in the fields of their particular competence. In the staff of every school of any size at all, there will be one or more teachers with more interest and more information in each of a number of areas of education than the others. One teacher, or in larger schools, a committee of teachers, may be found to be more interested or further advanced in guidance, or in some aspect of guidance — home rooms, mental hygiene, interest inventories, records, occupational information, aptitude testing, adjustment questionnaires, social affairs, etc. For each of these as well as a hundred other possible lines of staff growth or spread or improvement of school service, a teacher or a committee, may well lead not only other teachers but also the supervisors. In such instances, the supervisor's function is not so much direct leadership, but as organizer, stimulator, and later, as one to provide good working conditions for work and growth along the lines undertaken. In cooperative supervision every teacher may be a leader. Each makes a contribution.

It may well be that in some schools no teacher is available who is particularly competent to lead in certain fields in which it is desired to grow. But even where these conditions exist, it frequently happens that one or more teachers may be found who will undertake to learn more in the fields in question and prepare themselves for leadership. Once made responsible, they may agree to study intensively in the field — perhaps to attend summer school for specialized study.

The Cooperative Approach to Problems

It is difficult to think of a field in which teacher growth takes place, and to which the approaches of cooperative supervision will not apply. It has been demonstrated time and time again that it is a sound approach under favorable conditions to curriculum construction. It is in this application that I believe it undergoes its severest test. As curriculum builders, teachers are relatively ineffective unless they prepare themselves especially for the task. By reason of their education, high school teachers are likely first to have to divest themselves of a bias, a tendency to think in terms of subject matter rather than in terms of child growth. To them curriculum revision means a reshuffling of the old materials with a view to getting them learned more effectively, instead of starting with what it is in their field, that the great mass of the population can be best prepared for all of life's needs. But with the great amount of printed and duplicated material available, which may be gotten at low cost from other schools, the obstacles of time and lack of creative ability on the part of teachers, and their lack of acquaintance and orientation in nonschool applications of their subject, may be partly overcome.

[1]Director of College of Education, University of Colorado.

In the related field of textbook selection, the cooperative approach is indeed most appropriate. Textbook selection, however, in many schools has not been accorded the importance, the attention, and the time, that the decisions which play so large a part in determining or influencing the instructional activities of teacher and learning activities of pupils, which it so clearly deserves.

The cooperative approach is applicable to the many problems of extracurricular activities, the development of understanding of their real relationship to the objectives of education, the organization and conduct of activities so that they will really make the contribution to educational objectives that so many so glibly attribute to extracurricular activities, as if they would result more or less automatically. In fact, in this field even more than in most others, the cooperative efforts may also include the participation of students as well as of teachers, supervisors, and administrators. Committees may render valuable leadership in the preparation of point systems for the control of participation in activities, in the preparation of material for handbooks, in financial aspects of management, in the formulation of policies for student behavior, in the various exhibitory projects, and in many other phases of extracurricular activities.

The cooperative approach is equally applicable to problems of self and mutual improvement in all aspects of classroom procedures. The supervisor who feels compelled to carry the ball on all occasions is likely to discover that in addition to exhausting himself, spreading thin the vigor necessary for continued offensive, the drive falls short of success.

Finding Leadership Among Teachers

Teachers are almost always available on every staff of more than 10 or 15 individuals and frequently in smaller schools who are competent and interested to carry some of the responsibility for leadership and to make contributions in one or more of the more recent developments and trends in teaching, such as the use of motion pictures and other new developments in the field of visual aids, the treatment of controversial topics in the classroom, socialized discussions, large units of instruction, modern examination techniques, diagnosis and remedial work, teaching the dull normal, teaching the bright pupil, modern supervised study procedure, and the other phases of instructional procedure.

In some schools where teachers are known to have an unusually great professional interest and are thought to be unusually effective, the supervisor will be found to be a leader, in fact a most effective leader, though not a particularly conspicuous one. He is not a director but a counselor, a behind-the-scenes worker, helping teachers do what they want to do, not attempting to force them to do what he wants them to do.

Strength of Cooperation

There are certain characteristics of cooperative supervision which give it peculiar strength. As in the case of the pupil in the project method in teaching, the teacher feels more keenly his or her responsibility. By reason of active participation and of actual leadership, the activities involved therein are more vivid, more meaningful than are those of outside stimulation, regardless of how conscientious the teacher may be in conforming. Nothing is more conducive to increasing the learning effectiveness of any activity or set of activities than the sense of responsibility. It is a challenge to initiative, to imagination, to thorough mastery. It predisposes teachers to a favorable attitude toward the final conclusions.

Whatever the final conclusion, if possessing any degree of validity, it will be more intelligently as well as more vigorously applied by those who have given it birth. That is human nature. If a thing is our own, we understand it, we believe in it, we justify it. If answers to problems in education were like those in mathematics, one correct answer and no other to each problem, one might not be enthusiastic about a procedure which might result in wrong answers, no matter how vigorous they might be applied. But the truth is that if there are such answers to most of these problems, we have not yet discovered which they are. Again, an answer arrived at cooperatively is as likely to be right as any other — in fact, for that particular group it is more likely to be the right one than any other. There is another strategic or psychological advantage in the use of the cooperative approach. If a teacher or a group of teachers follow directions, perfunctorily or even more wholeheartedly and with very limited early success or with difficulties, the responsibility for success is passed right back to the supervisor. "Your idea won't work." If it is the cooperative developed plan of a group, they will concede defeat only after the most thorough and energetic attempts to apply it.

In addition to finding answers to immediate problems, teachers participating in cooperative efforts become cumulatively more capable of solving each successive problem. In cooperative supervision teachers grow as a result of their activities in thinking through and planning their work. They grow in initiative, in background, in the skills and the habit of thinking and planning.

Some Limitations and Difficulties

I suppose no one is foolish enough to think that the cooperative approach is without limitations. In fact many of us think of those first and never get much beyond that stage. Like all other effective methods in education, it is not easier but perhaps more difficult. It requires a high type of personality of the supervisor, unusual capacity for subtle leadership. He must be able to manage the hard way. He must be farseeing enough to trust to long-run results rather than quick results that he can see. He must be tolerant and capable of seeing developments go in directions that to him appear questionable. He must believe in the possibility that others may know better than he, or at least that there are several possible solutions, and that interest and motivation growing out of pride in their own ideas and efforts, more than compensate for what seems to rightly or wrongly to be an inferior line of action. He must reckon with the probability that if centralized supervision, rather than cooperative supervision is employed, the results will fall far short of the objectives.

Cooperative supervision makes great demands, sometimes excessive demands, upon teachers and especially key teachers with imagination, creative ability, and qualities of leadership, and as well as upon all those charged with supervisory and administrative responsibilities. Efforts should be made to keep the actual teaching load down and to relieve temporarily key teachers for leadership in in-service projects.

In addition, the scope of cooperative supervision at any given time must be limited. Those involved must have time to do their part well. They must not be surfeited. They must not be choked to death with cream. Or else they are likely to say as did one of my key teachers in a little city in Oregon where I was superintendent of schools: "Mr. Douglass, we want to help you work out all these things, but don't you think it would be better if you would just outline for us what you want done?" I had killed the goose that laid the golden egg. I was too ambitious and perhaps too impatient. I have since learned to be satisfied with slower but surer progress.

Democracy as a Means

Personally, I am not interested in cooperative supervision, or democracy in supervision, or teacher participation in administration, merely because it is "democratic." I have been a little antagonized by what appears to me to be either a fuzzy sentimental ooze, or a crude political gesture on the part of some administrations, college professors, and deans of education. I am not favorably impressed with this "whoopem-up" appeal for democracy in education. Nor do I believe that democracy in education is an inalienable right of teachers. I am interested in it because I believe it is sound psychologically, because, if skillfully managed, it will yield better results in terms of promoting child growth toward the objectives of education. The typical administrator or other supervisor will not make much of a success at it, until after several relative failures. On the other hand, what may at the time seem failure may not, as a long-term procedure, actually be a failure.

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Aviation Education in American Schools

N. L. Engelhardt, Ph.D.[1]

The schools of the United States have been taking a very active part in the promotion of aviation. Through the United States Office of Education thousands of workers have been trained in making airplanes. The Office of Education and the United States Navy Department have been cooperating in getting 500,000 model airplanes made by American youth. In spite of these activities, the American schools are far behind the schools of the enemy countries in advancing ideas about aviation and in making the American people conscious of the impact that aviation will have upon their lives.

For some time past, Secretary Robert H. Hinckley, of the United States Department of Commerce has been urging the "air conditioning" of the American people. Mr. Hinckley has stressed the need for wider knowledge about aviation as a means for conducting the war as well as a means for winning and maintaining the peace. He has been vitally concerned with the failure of the American people to understand the real import of the aviation age in which mankind now lives.

To bring about a change, the Civil Aeronautics Administration, under the direction of Secretary Hinckley, and the Office of Education, under the direction of Commissioner Studebaker, have formed a joint advisory committee on aviation education. The chairman of this committee is Dr. Ben D. Wood, and its membership is comprised of those nominated by the Civil Aeronautics Administration and the Office of Education and includes representatives from the Army and Navy Departments. These two agencies have announced that the committee's purposes would be:

1. To serve as a general clearinghouse committee in which the related objectives and problems dealing with aviation education of the four governmental agencies (Army, Navy, U. S. Office of Education, and Civil Aeronautics Administration) may be discussed, duplication of purposes and operating procedures eliminated, and mutual cooperation secured.
2. To stimulate a consciousness and recognition of the need for providing aviation education for American youth.
3. To initiate the promotion of aviation education programs for the precollege age group which will be rapidly geared to the war needs and which will enable these youth to prepare for a postwar period in which the airplane will bring about great changes in our economic and social life.
4. To secure a rapid and sound development of aviation education in the schools of the country.
5. To review and to advise concerning plans and proposals when submitted by various subcommittees.

The executive committee includes Commissioner Studebaker; Assistant Secretary Hinckley; representatives of army and navy air arms; Ben D. Wood, Director of the Bureau of Collegiate Educational Research, Columbia University, and chairman of the national joint committee; Gill Robb Wilson, president of the National Aeronautic Association; N. L. Engelhardt, associate director of the Division of Field Studies, Institute of Educational Research, Columbia University; T. G. Pullen, Jr., Maryland State superintendent of public instruction, and Bruce Uthus, assistant to Mr. Hinckley.

[1]Professor of Education, Teachers College, Columbia University, New York City.

Aims of the Program

How the broad aims of the program to stimulate interest in aviation among school youth might be accomplished has been outlined briefly by Commissioner Studebaker.

We expect the committee to evolve new programs which schools may add to their curriculums, but existing courses can also emphasize aspects of aviation.

Teachers can explain the theory of flight in physics, and essentials of navigation in mathematics. They can brighten geography by following through many lands the course of famous flights, and in history classes go back to Leonardo da Vinci, who first set down basic laws of aerodynamics in the 15th Century.

To provide materials which may be used by teachers in the elementary and secondary schools, an aviation education research project has been set up by the Civil Aeronautics Administration. This project is being carried on under the direction of the committee consisting of Professors N. L. Engelhardt, Paul R. Mort, George T. Renner, and Ben D. Wood. The work on the project is being done at Teachers College, Columbia University.

As a result of this project, there will be developed within the next three months a series of handbooks, manuals, and documents which can be used by teachers and administrators throughout the country. A basic manual will be developed to acquaint teachers with the importance of the study of aviation in the war and postwar eras. Here will be presented basic concepts of aeronautics and aviation material which may be integrated into existing curriculums.

Special bulletins will be prepared showing the relationship of aviation to arithmetic and mathematics, physical sciences, geography, English, industrial arts, fine arts, social sciences, elementary education, and other fields. The contents of these bulletins will be such as to provide teachers in these fields with background material, suggestive units of work, and bibliographies of classroom literature and audio-visual aids. It is anticipated that many of the materials will be available by July 1, 1942. It is hoped that teachers' colleges and schools of education throughout the country will introduce into their summer school courses materials on aviation so that all schools can utilize such materials beginning September, 1942.

Many schools throughout the country have done constructive work in the field of aviation. It will help much in the advancement of this Aviation Education Research Project if those who have already done work in this field will send suggestions they may have to N. L. Engelhardt.

Future Importance of Aviation

The importance of aviation in the defense of the United States is too well known to require detailed explanation. The trials at Riom have shown us that France fell because of a lack of air power. Invasion of Norway was possible because of the mastery of the air by the Nazis. Great Britain forestalled disaster by brilliant air strategy and superior speed of her fighter planes. Pearl Harbor and Singapore, although superior fortresses for the days of naval warfare, proved inadequate in their defense against the modern strategy of aerial warfare. Everywhere there is a demand for more airplanes and more pilots for mastery of the air. The war will be won by air power and future defenses will be based in a large degree on the air force.

What is true of military strategy is equally true of commercial development. The postwar era and the planning for stable international relationships will be based to a great extent upon the development of air trade routes. They will recognize no barriers of water or land. Concepts of relationships between capitals of the world will be drastically changed. Space will be measured in time rather than miles. The capitals of Europe may be more accessible to New York than the capitals of our western states. The route from Tokio to South America may logically be via Seattle, Denver, and the Gulf of Mexico. The route from Tokio to Moscow would logically be via Fairbanks, Alaska. It is important, therefore, that our social studies and geography should be so oriented as to develop an understanding of these new space relationships and their effect on the development of the United States as a world power.

It is important, too, that a thorough understanding of the third dimension in which we are beginning to live be brought about among teachers and pupils. Aerography must supplement geography. The study of the air, the winds, clouds, and troposphere and stratosphere, must be commonplace. Principles of flight must be understood by each individual. This does not imply a technical knowledge of aerodynamics for all, but it does mean that all

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For Next Fall — Wanted 250,000 School Teachers

War is about to make its drastic inroads on the supply of public school teachers. As the time approaches to consider teachers' contracts for next year, the threatened reduction of teacher supply brings to school-board members and administrators a host of problems which in turn have been for months the chief concern of numerous local, state, and national commissions. Those closest to the national estimates, even while almost apologizing for the spectacular character of their estimates, state that the shortage will approximate 200,000 to 300,000 teachers, or roughly one quarter of those currently employed in the profession.

The causes are several and lie principally in the following groups:

1. Loss of men teachers, both in the public schools and colleges and universities, through selective service and entry into governmental education work.

2. Loss of men to war industries for laboratory research and for training of new workers. Some time ago it was announced 15,000 men were to be taken even from industry to serve as trainers of these new workers.

3. "Raiding" of institutions by others more affluent who can pay higher salaries for certain types of specialists, as in chemistry, physics, mathematics, and industrial arts, in order to fill gaps.

4. Progressive loss of the best teachers at each lower salary level to be moved higher up.

5. Heaviest impact on rural teaching staffs, where inadequate salaries will not have sufficient holding power to withstand the attraction of wages in war industry, which may be several times as great as now paid by impoverished public schools.

Cutting across these factors are somewhat conflicting influences, which in some areas seem to indicate that the shortage will not be as great as estimated. And yet even these may augment the gap. For instance, with the rapid change of many a curriculum to meet war needs, certain previous emphases are slighted and teachers in those subjects are not so much in demand. The teacher-training institutions over the country are estimating a sharp reduction in summer teacher enrollments, particularly of men. And there is even a threat of dismissals in the professorial ranks, especially of those who have heretofore done field work, because of balancing budgets on the decline basis. On the other hand, there is the sharpest kind of logical need for the teachers' colleges to continue at top speed in order to accomplish what is necessary in the training of new women teachers and "refreshing" those who have been out of service to meet the emergency. Furthermore, at least in the centers of population and around the university and college campus, the immense speed-up of time schedules to meet the demand for training workers for war industry and armed forces, gives potent evidence of the need for the acceleration of teacher training rather than its diminution.

This all can be translated in the terms of dollars and teachers' salaries. Already over the country there are definite signs of the problems of teacher compensations for the next school year. Teachers' associations are printing material for circulation, analyzing inflationary trends in prices of commodities and insisting upon the maintenance of a decent teacher standard of living. Slightly conflicting with this is the comment within many a board room that the teacher will have to take some part of the public burden of excessive war costs. The immediate situation is being met by several devices. Some boards have voted flat annual "bonuses" of considerable size. Others have declined to call this a bonus, but have granted a special adjustment for the school year end. Still others have postponed action, stating that about next January will develop the crisis in prices, teacher supply, and the full impact of war on all factors. At that time, adjustments, they say, can be determined more logically than now. The schools in the more affluent districts possibly can delay on these problems with less danger than can those whose best teachers may be "raided" by the more affluent who can afford to pay top salaries.

The whole problem of teacher shortage gives great concern to the more sagacious leaders of both the profession and school-board movements in the several states most active in considering the gravity of the situation. Uniformly these leaders fear that standards of teacher certification may be lowered, that a lot of incompetents will get into situations and stay there to the lowering of the national average, which now is said by experts to indicate 25 per cent deficiency in training.

In order to bridge the gap many commissions are pointing to the repeated statements of the President that education must help win the war, and themselves are producing the evidence that state and national financial aid must be forthcoming if the national war-education policy is not to be wholly inconsistent. It must be borne in mind that over the United States roughly five eighths of all public school support is met through local taxation, and that in thousands of cases the local school districts have already taxed themselves to their legal and financial limits. For years legislatures have been kept informed of the inadequacies of local financial support. For years the pressure groups at Washington have been advocating a more logical national assistance. Now, as the need approaches the stage of critical unpreparedness, there are requests for a national subsidy of about $300,000,000 on a state equalization basis. Changes are taking place so rapidly that study groups working on these problems dare not commit themselves more than a few months ahead. There is need to finance the students immediately available, provided action can be taken to defer the men for vital educational effort. There is need to recruit and finance the "cedar chest" teachers who have married and put their diplomas away in moth balls and doubtless would need "refresher" training. There is need to raise the income of teachers in the very low salary groups in order to hold them in the profession and to improve their teaching standards and abilities.

While it is going to be necessary to bring home to national legislators by popular information the need for national assistance, commissions in many of the individual states are saying that the amount set up in the current Congressional bills cannot possibly meet the needs. Some of the more populous states have said they needed from $30,000,000 to $50,000,000 to take care of the rising emergency. Numerous conferences have brought out that even new devices for taxation will have to be brought into action if the schools are not to be depleted of man power.

The confusion existing at the time of writing is in part reflected by the repeated efforts to curtail, against the expressed wishes of the President, the federal support and the activities of the CCC camps and the NYA work-experience centers. The effort on the part of national senators and congressmen to stop these activities is usually on the assumption that they are nonessential activities in wartime. A critical visit to a navy group training for naval aviation mechanics discloses very little practical difference from the training done in one of the larger work-experience centers of NYA, save possibly speed and breadth of program. There is no intention here to advocate one thing or the other. The purpose is solely to emphasize confusion, which in part is indicated by the fact that the NYA groups were divorced from the federal office of education by placing them under the Federal Security Administration and by past bitterness engendered by such action, and the frequent senatorial demand that they be shifted back again and be admitted to be definite educational projects — a part of the vast federal paralleling of the public school system.

While statements of eminent authorities in national youth salvage and training seem to indicate that sufficient money will not be forthcoming to save the great group of women rural teachers from deserting to war industry, constant argument by the

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Nature Study in Fort Worth's Botanic Garden

Ena McKinney

A few mornings ago I arose at the unbelievable hour of 5:30 a.m., and within half an hour I was one of a troop of ardent and alert trekkers through the dewy grass in Fort Worth's famous Botanic Garden. I trailed behind a group of leggy urchins moving cautiously and silently ahead like so many small stalking Indians. Many of them had field glasses and all listened intently and followed with attention and suppressed excitement the low-voiced information and instructions of their boyish nature director, Bill McCart.

This truly wonderful garden contains more than 37 acres of natural forest, rolling lawns, formal and informal gardens, water gardens, and nature trails. We were slipping along one of the trails that spread through the forest for miles, crossing lagoons and winding around dense undergrowth. The garden was built entirely with relief labor in 1932 and 1933, and was completed within 15 months.

From the stone shelter house at the top of the terrace in the photograph, a breathtaking vista stretches endlessly, patterned after that of the great French garden at Versailles. The ramp near the shelter is filled with thousands of roses of more than a hundred varieties, spilling their beauty and perfume lavishly for all who come . . . and come they do, as many as 15,000 on a Sunday. Roses also fill the entrance at the shelter house, the formal garden, the oval garden, and the vista . . . one is intoxicated by their profusion and exquisite fragrance.

The water gardens on the left are fed by three springs and spill their crystal waters over waterfalls and artfully placed stones and tumble from one lake into another through the woods and into the dark lagoons. Myriad aquatic plants, native and rare, grow almost while one watches. There's a wild-flower garden and an arid garden wherein one may see all the fantastic and beautiful plants of the great Southwest. An exciting spot, too, is the test garden, where specimens from distant states and foreign lands are planted and watched with interest to see how they grow under local native conditions. At the greenhouse, a step away, seedlings are started, plants propagated, and tender specimens are wintered.

The Garden Center itself is charming, as is its hostess and director, Mrs. Will F. Lake, known to thousands of gardeners all over the nation. This quaint little stone house has stained glass windows, a fireplace, a spinning wheel, and a lovable terra-cotta faun for a luck piece. It houses inexhaustible files of information and a complete gardening library. One half of the salary of the Garden Center director is paid by the Fort Worth school board, the other half by the municipal park board.

I had left the stone house with the small naturalists at this early hour because they were out before the sunrise to observe the birds feeding and to hear their songs . . . perhaps to see many shy birds who hide away at a later hour. We were looking especially for the scarlet birds. Suddenly we paused at a quiet signal . . . the clear

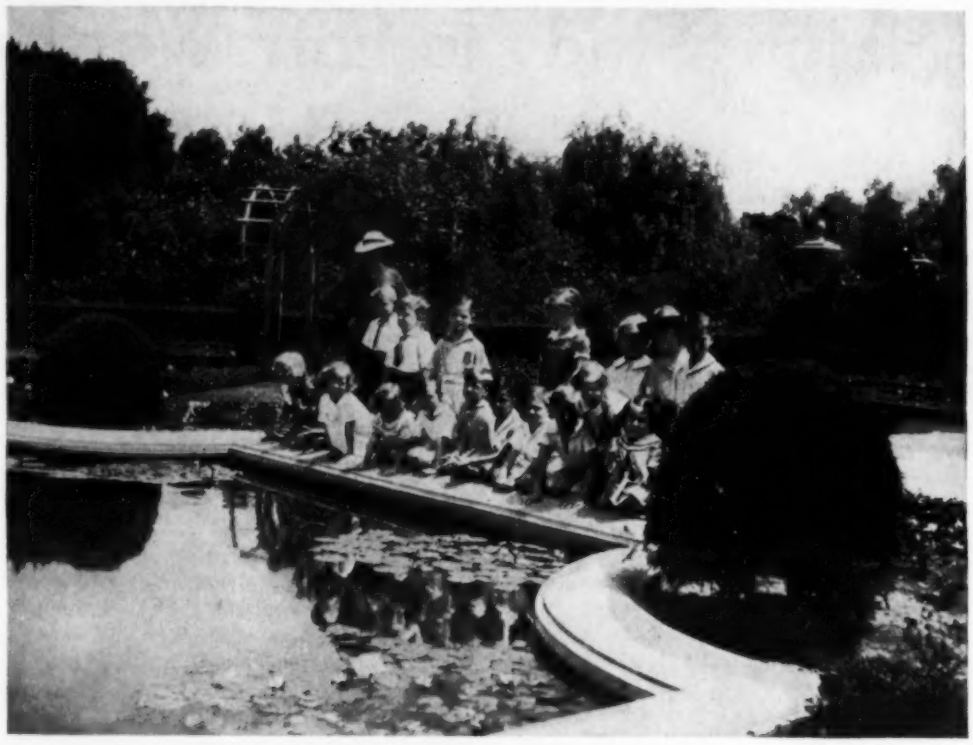
The starting point for educational trips through the Fort Worth Botanic Garden is this pavilion with its terraced gardens and lagoon.

call of a painted bunting, or Mexican canary, trilled from the topmost twig of a willow. There he sat for our minute inspection through the field glasses, gorgeous in brilliant plumage of red, blue, and purple . . . singing his happiness to the rising sun.

Slipping along down the quiet nature trails and beside the lagoons, as wild and natural as when the Indians owned them, we heard the yellow-billed cockoo, or rain crow; saw wee gray chickadees and hopping robins and darting cardinals. There were bluejays, scarlet tanagers, and scissor-tail flycatchers. A chimney swift looked like "a cigar with wings" to one small boy, and another observed that the squirrel nests we saw "were air conditioned without any ole' pipes." There were sooty puffballs, swans, leaping fish, and wildly diving frogs . . . dozens of things not "scheduled" to be seen.

We had the feeling of being in some strange primeval forest, with the tall trees and their interlacing branches shutting out the light until only a dim coolness filtered through and made a leafy cathedral all around us. After an hour or more, the children returned to the Garden Center and colored from memory the various birds they had seen, upon ready prepared bird drawings. They were bubbling with excitement about learning that a bird could be identified by his characteristic call, even if he were not seen. That feathers and string and cotton placed about for nest building brought birds to one's own garden. That they knew those small brown birds *were* wrens, without a doubt.

It was a charming experience, and I came away feeling that the Fort Worth school board had done a very wonderful thing by helping to make such excursions possible in this most beautiful of places, the Fort Worth Botanic Garden.



Classes from the Fort Worth public schools regularly visit the Botanic Garden to study plant and animal life.

A TYPICAL WEEK PROGRAM OF INSTRUCTION

Wm. L. McCart, Nature Guide

MONDAY, March 24, 10:00 a.m. THE REDBUD

An informal talk on the two species of Redbud found in Tarrant County will be given. Means of distinguishing these two Redbuds will be explained and the distribution and economic uses will be outlined.

TUESDAY, March 25, 4:15 p.m. THE REDBUD

An informal talk will be made on the Redbud for high school students, teachers, and interested adults.

WEDNESDAY, March 26, 10:00 a.m.

BIRDS OF THE PRAIRIE

A field trip will be made from the Garden Center to the prairie region in the northern part of Tarrant County to observe the birds typical of the prairie region.

FRIDAY, March 28, 10:00 a.m.

NATURE IN MARCH

A hike through the Nature Trails of the Botanic Garden will be held. Courting songs of birds will be heard, and early blooming shrubs and wild flowers will be examined.

Standard Specifications for Supplies and Equipment

William M. Coman

After a standardization committee has selected the type and necessary quality of an item of supplies or equipment, the next step is the formulation of a buyer's specification which will procure a uniform article of satisfactory quality at a reasonable price. Of necessity, the specification establishes the minimum quality which will be acceptable. Into the long range of qualities, from the poorest to the best, a dam or stop must be inserted which defines the grade below which the buyer will not go. However, bidders should always be at liberty to offer merchandise of better than specified quality if they are able to meet competitive prices.

Specifications Defined

The United States Department of Commerce offers the following definition:

"Specifications are the formulated, definite, and complete statement of what the buyer requires of the seller."

In general, specifications should be written in clear, concise, nontechnical language, and should tell the vendor exactly what the purchaser wants and expects to have delivered. They must be broad enough to encourage free competition and must provide for suitable tolerances. Specifications should never be written so rigidly around one product that alternates of equal value are excluded from consideration.

Specifications which cannot be easily enforced invite the unscrupulous dealer to gamble on the chance that the delivery of inferior goods will not be detected. In so far as possible, the receiving clerk should be able to determine whether deliveries meet specified qualities without recourse to technical advice or laboratory tests. This is not always feasible, but it is a good rule, nevertheless.

Four Types of Specifications

There are three types of specifications in common use and a possible fourth type which is a combination of the first two.

I. *Purchase by Brand Name.* This type of specification is very commonly used, and has the advantages of ease and simplicity. For example:

Rod, welding, manganese bronze, 3/16 x 36".
Equal of "....."

In practice, the purchasing department soon locates several alternate brands of approximately equal quality. Practical or laboratory tests are employed for testing new or untried brands against the brand specified. However, many dealers object to the free advertising given the brand which

is used to establish acceptable quality. Use of three brand names has been suggested, but this tends to complicate the difficulty because all dealers of equivalent brands believe that their product should have been mentioned. On the other hand, there has been bitter complaint that the "honored" dealer must bid on his specified brand, whereas his competitors are free to offer slightly inferior brands in the hope of making a sale on the basis of price.

A variation from this type of specification is *purchase on sample,* where bidders are invited to examine the sample and bid on their nearest wares.

II. *Purchase by Formula or Composition.* This type has many advantages. No firm or brand name is used, but the specification must provide sufficient tolerances to admit several brands of suitable quality. Using the same welding rod as an example, the specification becomes:

Rod, welding, manganese bronze, 3/16 x 36", having approximately the following average chemical composition by weight:

Copper	**57.50%**	**Manganese**	**0.03%**
Iron	**1.00**	**Lead**	**0.10**
Tin	**0.87**	**Aluminum**	**None**
Silicon	**0.09**	**Zinc**	**Balance**

Melting point approximately 1615° F. Hardness of deposited metal to be approximately Brinnell No. 96 at room temperature.

Enforcement is more difficult than where acceptable quality is defined by the use of a trade name. As a safeguard the vendor may be required to file a "certificate of compliance" attesting that all requirements of the specification have been met. But this may not be enough. As a further precaution, laboratory tests on random samples from a shipment are sometimes necessary. The purchaser should bear the expense if the product meets the specification, but the vendor suffers rejection of the shipment and pays for the test if it does not.

A typical example of this type of specification as used for fabricated equipment follows:

Mat, gymnasium, 4' x 8' x 2", constructed of two 1" layers of first quality hair felt covered with 21-ounce (36" basis) triple filled white duck, with boxed edges and lockstitched seams turned on the inside. Ends where felt is inserted shall be hand sewed with No. 6 linen cord thread, doubled and waxed, using an in-and-out stitch which does not lap over the edges. Tufts shall be of 12-ply soft cotton twine, doubled and waxed; tufts to be spaced approximately 8" apart in straight lines. The four handles shall be made of the same material as the cover, in 4-ply thicknesses, stitched to the boxing, and reinforced by canvas straps sewed on inside of cover. The layers of hair felt shall be fully 1" thick, absolutely sanitary, and of uniform thickness. Heavy burlap shall be used between the felt layers to prevent amalgamation, and an extra edging of ½" thick hair felt shall be sewed between the 1" layers all around to fill out boxing and to prevent breaking down of mat edges. Mat shall be thoroughly wrapped to prevent soiling in delivery.

III. *Purchase on the Basis of Performance.* In many respects this is the most satisfactory method of all. A very simple specification calls for the submission of samples which will be tested under normal working conditions. The award is left to the discretion of the purchasing department when all the factors are known. Again using the welding rod as an example, the specification now is:

Rod, welding, manganese bronze, 3/16 x 36". Submit samples.

In this case, the sample rods should be "blind tested" by competent welders who know neither the brands nor the prices. Numbers are the only means of identification. The rods are tested for uniformity of composition, approximate melting point, hardness of deposited metal, ease of working, strength of brazed joint, and freedom from fuming. Samples are rated in the order of general excellence with comments regarding the good or bad characteristics of each, and a written report is submitted to the Standardization Office of the board of education. Recommendations to the purchasing department are based upon test results and prices.

Unfortunately, the cost of making practical tests on frequent small purchases is prohibitive. The plan is better adapted to the requirements of large orders or annual contracts.

An interesting example of performance testing was recently completed by the maintenance section of a western school district. Dealers were invited to submit samples of standard brands of interior gloss white enamel and undercoater, with directions for application. Labels were removed and numbers substituted as identification. The samples were given to a small group of skilled painters who refinished a classroom door with each of the brands submitted, in accordance with the manufacturer's directions. All doors were of uniform size and each had had exactly the same preparation for painting. An accurate record of the workmen's time and the quantities of materials used was kept, and from these data the cost per square yard on the wall was computed. An evaluation of quality of material, general appearance, hiding, drying time, ease of working, etc., was also prepared for each sample. A jury of experts recommended the award of an annual contract on the basis of all of the findings.

IV. *Basic Requirements and Brand.* This is a very satisfactory type of specification since it establishes certain minimum requirements and suggests a satisfactory brand. Once more returning to the welding rod as a typical example, the specification becomes:

Rod, welding, manganese bronze, 3/16 x 36", low fuming, melting point approximately 1615° F. Equal of "....."

This type of specification is less technical than the formula type, is easier to enforce, and is usually better understood by the dealers. A suggested buyer's specification for sheet-metal bench shears is:

Shears, compound lever, 4½" cut, capacity 12-gauge mild steel, parts of malleable iron with interchangeable blades of best quality crucible steel, over-all length approximately 33". Equal of "....."

Developing Specifications for Machinery

Specifications for machinery are often difficult to prepare. Poorly constructed or inadequate machines must be ruled out, but specifications which include many details tend to be written around one particular model and may exclude other equally satisfactory machines. Furthermore, patented features controlled by one manufacturer cannot be mentioned if open competitive bidding is desired.

A careful analysis of the essential features of acceptable models must be made and suitable tolerances provided which will admit all of them. Concurrently, the specification must be so constructed that unsatisfactory machines cannot comply with the basic stipulations. The line of demarcation between the good and the bad is sometimes hard to draw.

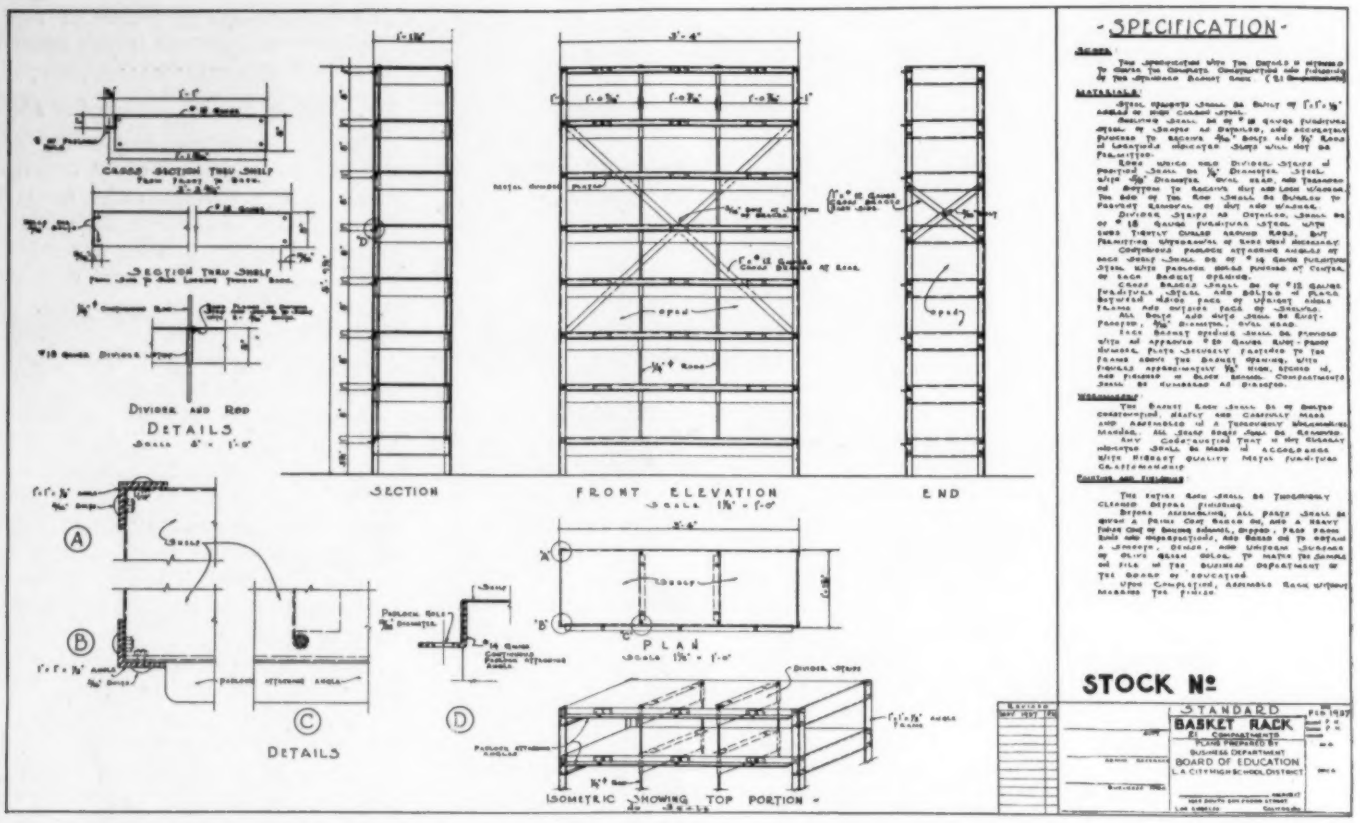
There are several devices for providing tolerances and limiting sizes. The word "approximately" can be defined by the board of education rule as permitting a deviation of 5 per cent or more. The accompanying analysis chart for a 30-in. band saw is a good illustration. In most respects the models are very similar. However, the size of the main table may be specified as "approximately 30 by 28 in.," or better as "not less than 28 by 26 in.," which automatically eliminates lighter machines with smaller tables. If greater control is desired, the table size may be specified as "not less than 28 by 26 in. or more than 30 by 28 in." Maximum clearance under the guide may be written "approximately 15 in.," but is probably safer as "not less than 14 in." Blade speed can be controlled by the number of poles specified for the motor.

Another device for controlling quality consists in specifying features which are uniformly present in satisfactory machines but absent in those of poorer quality. For example, the stipulation that "the frame shall be cast in one piece" eliminates two-piece or fabricated construction. "Rugged construction" shuts out flimsy types. If deemed necessary, a guarantee clause may be included such as "the machine shall be guaranteed for one year against imperfections of workmanship and/or materials."

A reference to state safety regulations and their requirements should be included as a part of the specification. Many headaches will be avoided thereby.

A suggested specification for the band saw follows:

Band Saw, 30", floor type, direct motor driven, with brake on lower wheel. Frame shall be of rugged one-piece construction built to stand up under hard continuous service with a minimum of vibration. All bearings shall be dust proof. Wheels shall be of one-piece disk type, rubber tired, not less than 1½" face, perfectly balanced to run true at all times. Table shall be not less than 28 x 26", tilting 45 deg. to right and 10 deg. to left. Maximum thickness of work



The Los Angeles board of education purchases furniture and equipment on the basis of specification sheets similar to the above which list closely the details of construction, material lists, workmanship, finish, etc. The specification sheets are periodically reviewed to make use of improvements in materials and finishes to keep all articles strictly adjusted to school use and to make for economies in all outlays.

under guide shall be not less than 14". Saw shall be equipped with guides both above and below the table. The dust-proof ball-bearing motor shall be capable of handling maximum output without overload and shall be not less than 3 horsepower, 3 phase, 8 pole, 60 cycle, a.c., 220 volt, wired to push button magnetic control with overload and undervoltage protection. Wheels shall be completely enclosed, with hinged doors at front. The machine shall be equipped with one ½", 21-gauge, 5-point saw blade, and all necessary safety devices as required by California State safety regulations. Equal of "....."

Specifications on Blueprints

Wherever blueprints have been prepared for apparatus or equipment, it is advisable to make the detailed specifications covering materials, workmanship, finish, etc., a part of the working drawing. The accompanying illustration indicates the method. There will be fewer misunderstandings when this plan is followed, since the specifications cannot be separated from the drawing. If the bidder has been given the most recent revision of the drawing, he has the proper specifications.

Sources of Data for Specifications

There are many sources of data which may be used for writing specifications. Perhaps the commonest source is the manufacturer's specification, supplemented by technical information and a personal examination of the offerings wherever possible. Trade handbooks and reports of research organizations are valuable also.

30" BAND SAW, FLOOR TYPE

Specifications	*Mfg. "A"*	*Mfg. "B"*	*Mfg. "C"*	*Mfg. "D"*
Diameter of wheels	30"	30"	30"	30"
Face of wheels	1¾"	1½"	1½"	1¾"
Type of wheels	Disk	Disk	Disk	Disk
Wheel guards	Hinged	Hinged	Hinged	Hinged
Brake	Foot	Hand	Foot	Foot
Frame	one-piece casting	one-piece casting	one-piece casting	one-piece casting
Size main table	30 x 28"	30 x 28"	28 x 26"	30 x 28"
Tilts right	45°	45°	45°	45°
Tilts left	15°	10°	10°	10°
Max. clearance under guide	14"	16"	15"	15"
Guides above and below table	Yes	Yes	Yes	Yes
Direct motor drive	Yes	Yes	Yes	Yes
Motor horsepower	2, 3, or 5	3	3	2 or 3
Motor speed	600 r.p.m.	900 r.p.m.	900 r.p.m.	900 r.p.m.
Dust-proof motor	Yes	Yes	Yes	Yes

The Federal Standard Stock Catalog contains specifications for many commodities used by schools. They are of the formula or composition type and are without brands or manufacturer's names. These specifications are written in considerable detail and may be longer than desired for most purposes. If so, reference can be made to them, as:

Vice, machinist's bench, stationary base and jaw, width of jaws 4", opening of jaws 5½", must comply with specifications found in Federal Standard Stock Catalog GGG-V-436-13, Type VII, Class A, April, 1936.

However, this method is not wholly satisfactory since most dealers are unfamiliar with the technical composition of their stocks and must consult the manufacturer before bidding.

There is another simple expedient for securing needed information. Manufacturer's agents may be invited to submit proposed specifications for an article of the desired type and quality, with the understanding that suitable tolerances will be provided to admit all satisfactory brands. Each individual will be tempted to favor his own product, but the composite returns are likely to provide accurate data for an excellent specification. In such cases, the completed specification should be referred to the representatives for approval or further suggestions.

Need for Good Specifications

Good specifications are of inestimable value to all concerned. The buyer protects the type and quality of merchandise and is sure of receiving what is wanted. The seller has an exact basis for his bid, without guesswork, and knows that he has been given a fair and equal opportunity for getting the business. The receiving clerk

(Concluded on page 68)

A School Solves Its Transient Problem

Roy E. Learned[1]

America is changing with startling rapidity. During the past decade family life has been affected to its deepest roots. Dust bowl, divorce rate, trailer house, industrial expansion, and national defense are typical symbols of these changes, which have demanded drastic adjustments in school organization. And, now that we are a part of the most titanic struggle of all history, we may expect the tempo of change to be hastened far beyond anything yet known. The Washington School, serving Sacramento's most transient area, is in the vanguard of experiences, which we all may soon anticipate in varying degrees of intensity.

Sixteen years ago, the Washington School building, constructed of enduring steel and concrete with its long, tile-lined corridors and beautiful auditorium and other modern appointments, was still the pride and one of the newest in the city school department. A six-room wing had just been completed to care for the growing school population as the school served one of the most desirable districts in the city. High officials of state and city government, professional men, and business leaders, as well as workers of more modest means, owned their homes and reared their children in the Washington district.

A regular Monday morning office scene. Donetta is being registered by the clerk. The principal is chatting with one of the mothers. A youngster is amusing his baby brother while awaiting his turn.

Then Came the Transients

But what a change has taken place in those 16 years! Great industries in the neighborhood expanded their plants in the late twenties, razing whole blocks of homes and making large near-by areas less desirable for residential purposes. Then followed the population shift to new real estate subdivisions. The abandoned, once-palatial homes were converted into cheap flats, each of which accommodated several families. Then came the economic convulsions of the depression, which struck the Washington district with terrific impact.

Today the Washington School provides elementary training for the children of the largest obsolescent, low-rent section of the city, and from all indications this will be its future service for a long time to come. Only a fraction of the people living here are permanent residents. Newcomers of limited means, trying their fortune in the capital city, rent a humble flat near the Washington School. If they are fortunate and employment becomes steady, they move to a better location. Some even build a new home on the outskirts of the city where fresh air, light, and play space are more abundant for their children. If unfortunate, they move on, and others take their places. So, an endless stream of boys and girls pour through our doors to tarry for a few days, a few months, or at best, only two or three years. Associated with transiency are disorganized and broken homes, poverty, and a sense of restless insecurity.

We were baffled at first as how to best meet the changed situation, which had climaxed so suddenly. Standards of health, personal cleanliness, regular attendance, classroom and playground morale, and scholarship, which other schools maintained so easily, seemed all at once to evade our grasp. Results declined in quality no matter how hard we drove ourselves or forced the children. The restiveness of the home carried over into the school, and when time-tested attitudes and procedures failed, we were at a loss to know what to do.

The clerk sent Donetta to the Receiving Teacher of the fourth grade. Now they are getting acquainted. She will also give Donetta some standardized tests.

Threshold of an Opportunity

At last, we came to the full realization that we were on the threshold of a magnificent opportunity to serve an unfortunate childhood, but obviously by a new and uncharted approach. We realized our first task was to furnish these children a sense of success, and a feeling of security of which they were deprived at home. We must extend them a radiant welcome from the moment of arrival, until they transfer from us. So, today we greet the newcomer most cordially as he registers and escort him to his receiving teacher. Each of the six grades has its receiving teacher, who is skillful in subjectively appraising the interests, abilities, and scholastic achievement level of the new pupil. She may take two or three days, if necessary, and she usually supplements her judgment with standardized tests.

The new arrival's chronological age, physical development, and social maturity determine the *grade* in which he is ultimately placed, and his reading achievement determines the *class* to which he is

[1]The Washington School, Sacramento, Calif.

The Receiving Teacher, after studying Donetta's abilities, and needs, decided the new child should remain in her class. The small group is being given special help in reading.

assigned within the grade. We use reading achievement as a basis of segregation, as it is easily measured and correlates closely with the achievement level of the child's other schoolwork. We have one large, fast-reading class; one average-sized class of average readers; and one small, slow-reading class not exceeding 25 pupils in each grade level. A slow-reading pupil is the more dependent pupil, and requires more of the teacher's time to make reasonable progress, hence the small class for retarded readers.

When a Boy "Belongs" to His Group

In using this method of segregation, we place the child in the social grouping to which he feels he belongs, and at the same time in the scholarship level at which he has an excellent chance of success. Both of these are imperative to the child's contentment. We have no pangs of conscience whatever when we put a husky 13-year-old boy, who comes to us with a conditional promotion to the fifth grade, in a slow-reading sixth grade. Probably, the general reading level of the class is not much above the fourth grade, nor is the mastery of other tool subjects little better. So he doesn't feel hopelessly outclassed. Our most difficult task in acquiring a new viewpoint has been to drop back to the actual performance level of the children and begin teaching from that point. No one change in our organization for instruction has brought greater happiness to the children and greater peace of mind to the teachers. Tension created by the conscientious but impatient and exasperated teacher has practically vanished from our building.

We are by no means content to slip into an easygoing, low-accomplishment program. On the contrary, we determine as quickly as possible, the potential ability of each new pupil as a guide to what we may ultimately expect of him. It is just as important to challenge him as to avoid discouraging him. The Durrell-Sullivan Reading Capacity Test, which correlates closely with some of the best individual mental tests, has been most helpful in confirming our subjective judgment of the child. Such a reading-capacity test has two distinct advantages over the group intelligence test, so commonly used. It is pictorial and requires no reading skill, and we can discuss its results with the child and with his parents without restraint. By talking about his capacity to read as compared with his actual achievement in reading, we escape the hazard of using such perilous terms as "intelligence" and "I.Q."

Retarded "Bright" Children

Incidentally, through testing we have found that a high percentage of our slow-reading children are normal or superior in innate ability. It took us a long time to grasp this fact. We were prone previously to excuse low performance on the grounds of dull mentality. Some of these youngsters with extremely transient backgrounds are retarded in achievement as much as five or six years below their actual capacity. As one would expect, these bright but retarded victims of transiency often reflect the discouragement which they have long suffered. Nothing, however, does so much in dispelling discouragement as to put a pupil at scholastic tasks he can accomplish successfully, to associate him with children of his own social age, and to inform him and his parents in personal conferences of the latent ability he possesses.

In our program of rehabilitation, we have also looked to the child's physical well-being, and to improved physical surroundings. To illustrate, we have become sensitive to the influence of inadequate lighting in many of our classrooms. We have studied the reflective values of various tints of paint, and are already nicely started in refinishing our darkest rooms. By changing the switches and moving some of the lighting fixtures, as determined by the use of a light meter, we are getting much more artificial light, without greatly increasing electricity costs. Merely rearranging the pupils and the teacher's desk, and better adjustment in the shades, have often improved natural illumination in the classrooms.

Through the help of the Sacramento eye specialists, we have become keenly aware of the numerous direct and indirect symptoms by which children indicate to an alert teacher, that they are suffering from some form of visual impairment. It is truly surprising how frequently our subjective observations are verified by a visual examination at the clinic. Steps then are taken through the cooperation of the home and the local welfare agencies, to secure glasses or other orthoptic help. While speaking of glasses, it may be well to mention that no matter how impoverished the home, we have found by experience, that it is well for the parents to participate to the extent of their ability, in buying glasses. This tends to insure that the glasses are worn and are less likely to be broken than if they are presented as an outright gift.

Some Are Just Tired

As one would expect in a transient, underprivileged section of the city, there are children who lack physical vitality to do well in school. Necessity may compel them to sleep on the floor, or in crowded and uncomfortable beds. Often their beds are situated in the family living room, which does not permit the children to sleep until the lights are out. A normal night's rest of 10 or 11 hours, which young children need, is the exception in many homes. Little wonder that so many youngsters arrive at school in the morning tired and restless! In such homes, regular nourishing meals are as uncommon as proper rest. Couple these difficulties with the strife, irregularity, and uncertainty that surround these children, it is not surprising that so many of them are on nervous tension, are underweight, and undervitalized.

Surrounding them with a friendly, relaxed atmosphere at school in which routine is simple and discipline is gentle but consistent, is obviously imperative. To let a whole class put their heads on their desks and rest for five or ten minutes, or to

let an exhausted child sleep for an hour, and to furnish a recess lunch of milk and graham crackers, all help. But in extreme cases that is not enough.

For four years, the Charity League, a splendid welfare group, has conducted a Rest and Nutrition Project in the Washington School. The League has generously furnished a trained nurse to supervise the project. The enterprise consists of supplementing the light lunches, which the children bring, by all the milk they can drink, by generous helpings of well-buttered bread, and by a plentiful supply of cod-liver oil. Moreover, each child enjoys an hour's sleep on a comfortable cot, in a quiet, well-ventilated room. The nurse is assisted by a daily rotation of two members of the league. The league has not only equipped the two rooms used in the project, but also supplies the milk, butter, bread, and cod-liver oil. This boon came to us unsolicited, and is a striking illustration of how willing the community is to assist a school in carrying out a practical program to meet the needs of the unfortunate youth of today.

School Helps Home

A school program such as ours, in which pupil adjustment is the keynote, calls for close cooperation with the home. Not only do we take an active part in the PTA organization so that we may meet many parents and acquaint them with our efforts, but we hold numerous conferences daily with individual parents. Every teacher in the school assumes her quota of these conferences, knowing the parents better and by their giving us, their child's background through casual conversation, we are in a much better position to understand the pupil with whom we daily must work. We make every effort to maintain the most congenial working relationship with the home, and out of that comes an honest, even though sometimes limited, effort on the part of the home to assist us. Indeed, we are often placed in the role of a counselor for the parents themselves in their own adult problems.

We no longer chafe at the office full of new children who arrive for registration each Monday morning, nor are we disturbed when 20 or 25 seek transfers on a Friday afternoon. So many new angles to our unique job constantly present themselves, that the days pass all too quickly, and even a whole year flows by with disquieting swiftness.

Those who see transiency peering over the horizon, should not feel alarmed, for a mobile school population presents many unsuspected opportunities for vital service. It may truly be a source of genuine satisfaction.

Application of Workmen's Compensation Statutes to Public Education

Edgar Fuller*

This article is a discussion of workmen's compensation laws as they are applied to educational employees in the several states. It also considers the reasons for and against application of compensation provisions to pupils while they are in school.

A. Development of Compensation Statutes

Failure of the common law to adapt itself to the requirements of modern society made the workmen's compensation laws necessary. Compensation for industrial accidents grew out of the demands of the modern industrial system. Before the statutes were enacted, workmen who had been injured by the negligence of fellow workers, through their own carelessness, or after they had "assumed the risk" of a dangerous occupation, could not recover from a negligent employer. Even when none of these common law defenses was found applicable, the negligence of the employer had to be proved. Ultimate recovery of damages required survival of an uphill fight against the delays and uncertainties of a court action and the legal and financial advantages possessed by the employer.

Legal barriers, ignorance, fraud, or immediate financial need frequently brought settlements for nominal sums in cases where workmen had been disabled for life, or even killed. The common law on the subject was developed before either industry or government assumed much responsibility for the welfare of labor; the fellow servant rule, the plea of contributory negligence, and the doctrine of assumption of risk, combined with the difficulty of proving that the employer had been negligent, usually denied financial relief to the workmen who had been injured in industry.

Some of the strongest roots of the modern demand for social security are found in the revolt against these hang-overs of the common law. The compensation statutes gave relief for injuries due to the negligence of the employer, and went further; they allowed compensation regardless of negligence by the employer. The three notorious common law defenses were repealed. Losses from industrial accidents became a socialized risk, with protection organized on insurance principles, and their burden was no longer left solely on the unfortunates who suffered them. Such losses are now commonly regarded as a part of the cost of industrial enterprise.

When the compensation laws were under consideration, the question of including public employees arose. After all, there was another group of citizens who had little financial protection against injuries, whether their public employers had been negligent or not. This situation was not caused primarily by the three defenses of the common law already mentioned, but rather by the even more venerable and absolutist idea of sovereign or governmental immunity from liability. The security of public employees was impeded by modern versions of the ancient idea that the king can do no wrong. Regardless of the merits of his cause, an individual seldom has a right of recovery against the state or its political subdivisions when they have acted in their governmental capacities, except in the rare instances when the state has given specific consent to such suits by statute.

The first state compensation statute was passed by New York in 1910, and all the states except six had followed suit by 1920. Since the Arkansas law became effective on December 5, 1940, only Mississippi now remains outside the fold.[1] Subject to adjustments for pensions, retirement, or disability benefits for specific classes of public employees, inclusion within the compensation provisions is justifiable for public employees generally, and this has commonly been done.[2]

B. Position of Educational Employees

No attempt will be made here to enumerate the provisions of the statutes in each state, which are details for local boards of education and superintendents. It is sufficient to say that employees of public schools are included to some extent in the workmen's compensation acts in most states. The provisions are often compulsory for substantially all classes of such employees. Some laws are elective in form but compulsory in fact, while others are really elective.[3] Many cover only employees in "hazardous" or "extrahazardous" occupations. Premiums are paid into monopolistic state funds in 14 states.[4] Insurance, security, or proof of responsibility is required from public employers in all other

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[1]In Mississippi a school board may pay from public funds up to 20 per cent of the cost of group insurance covering life, health, accident, and hospitalization of employees, and may collect the other 80 per cent from them. There are limits of $2,000 per person for death, $20 per week per person for health or accident benefits, and $4 per day per person for hospitalization. (Chap. 141, Gen. Laws of Miss., 1940.)

[2]W. F. Dodd, *Administration of Workmen's Compensation*. The Commonwealth Fund, New York, 1936.

[3]See *Digest of Workmen's Compensation Laws*, Association of Casualty and Surety Executives, 60 John St., New York, 1939; William R. Schneider, *Workmen's Compensation Laws*, Thomas Law Book Co., St. Louis, Vols. 1–2, 1939, Vols. 3–4, 1940.

states where their employees are protected, except Alabama.

Elective school officers are often excluded from the operation of the statutes, as are school employees earning above maximum amounts.[5] Injuries which have been willfully committed or which have resulted from intoxication are often not compensable. The general effect of the laws, however, is to provide a fixed scale of compensation for most of the injuries suffered by eligible employees within the scope of their employment by school districts.

The statutes provide compensation to teachers and other employees for injuries similar to those suffered by pupils or third persons through tortious acts of school employees. Employees are thus placed in a highly preferred position, since pupils or third persons are usually denied recovery against the school district in tort actions, even when fault has been established,[6] and tort actions are the only remedy for those to whom the compensation provisions do not apply. Moreover, the preference goes much further, since compensation is allowed under the workmen's compensation laws regardless of fault. The only questions decided before fixing the compensation are whether the claimant comes within the statute and whether the injury was received within the scope of the employment covered.

1. Legal Interpretations

The courts have faced both conflicts in policy and vagueness in the letter of the law when they have been called upon to interpret the compensation statutes. During the early years there was a tendency to construe the new provisions strictly, and this was in good legal style since they are in derogation of the common law. But many judges have more recently discovered words to indicate the opposite attitude; such statutes are generally now regarded as "remedial" in nature, and therefore "subject to liberal construction in order to accomplish the purposes for which they were intended." The older viewpoint has prevailed in most of the court decisions which have fixed the extent to which workmen's compensation shall be applied to public school employees. These cases were decided before social security was judicially popular, and they are clearly restrictive in their tendency.

The principal problems in applying compensation statutes to educational workers occur in the states where only "hazardous" employment is covered. These and a few other difficulties may be illustrated by brief reference to some leading cases. In 1914 an employee of Michigan Agricultural College, which was controlled by the Michigan State Board of Agriculture, was held not subject to the Michigan act because the college had not elected to come within its terms. The claimant was held not an employee of the state within the intention of the statute.[7] The reasoning that the employee was the servant of the college alone, and not of the state, was obviously inconsistent with the reasoning of the same court in arriving at immunity of similar public authorities for the torts of their employees.

A school janitor who labored with his hands was held within the Massachusetts law of 1913, but the court suggested that a head janitor who did no actual manual work would not have come within its terms.[8] A teacher of auto mechanics was held not protected by the same statute, although he did some manual work through demonstrations in his classes.[9]

Legislation was necessary for the inclusion of school janitors within the Nebraska act, after the supreme court in that state held it applicable only to proprietary activities.[10] The Illinois law was applied to both school janitors,[11] and manual training teachers,[12] and in the latter case the court held that the manual training room of a public high school is a "workshop" and the conduct of such room an "enterprise" within the meaning of the statute.

A chemistry teacher was held not engaged in a "hazardous occupation" within the New York law in 1921, a closely divided court deciding that the act applied only to occupations conducted primarily for pecuniary profit.[13] The dissenting opinion contended that the handling of chemicals was a "hazardous occupation" and that pecuniary profit for the school district was not a prerequisite to the application of the compensation laws for the protection of the teacher. With the help of minor amendments to the statutes the dissenting view soon came to prevail.[14]

Further Interpretation Difficulties

Further difficulties in judicial interpretation may be illustrated by a situation in Oklahoma. The State Insurance Fund of that state quotes compensation premium rates of 11 cents per $100 of pay roll for "colleges and schools," and $1.26 per $100 for "all other employers." The compensation statute defines employment as a "trade, business, or occupation carried on by the employer for pecuniary gain." The Supreme Court of Oklahoma has held that school districts are not "employers" within the statute.[15] It seems doubtful that any substantial benefits are possible for school districts which pay premiums for compensation insurance under these circumstances.

In reply to an inquiry about the effect of the law on school employees in Oklahoma, the opinion of the attorney for the State Insurance Fund on April 1, 1940, was that: "As a policy of insurance is written upon the classifications mentioned the only benefit, in the writer's opinion, that could be obtained thereunder would be the benefit of defense of the case, in the event a claim for court compensation was prosecuted against said college or school. This opinion does not cover any operations other than those of school classifications, pertaining specifically to liability of the board of education under the workmen's compensation law of the state of Oklahoma for injuries to employees of said board."

The decision in Wisconsin that a person employed without a formal vote of the board of education to build schoolhouse fires was not compensable because he was not legally an employee seems unduly harsh.[16] The Georgia act has been held not to apply to county boards of education,[17] and the Pennsylvania statute includes a school principal,[18] but not an assistant county superintendent of schools.[19] Workers on federal projects sponsored by the public schools are not "employees" of the public schools, and therefore do not come within the compensation statutes of the states.[20]

A recent decision declined to regard the moving of a heavy ladder in a schoolhouse as "extrahazardous" employment under the Maryland statute.[21] More in accord with modern trends, however, is a Nevada case which allowed compensation for a teacher injured when she fell on a rock in a road while on her way to school. The court held that the teacher had duties in relation to the pupils even though she had not yet arrived on the school grounds, and that her injury was compensable because it arose out of and in the course of her employment.[22]

With compensation of school employees well established as a part of a larger state policy, the courts have encountered no dif-

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[4] According to *Digest of Workmen's Compensation Laws, op. cit.*, these states are Arizona, California, Colorado, Idaho, Montana, Nevada, North Dakota, Ohio, Oregon, Oklahoma, Washington, Utah, West Virginia, and Wyoming.

[5] As in Vermont, $2,000 or more annually; or in Arizona, $2,500 or more annually.

[6] Harry N. Rosenfield, *Liability for School Accidents* (New York: Harper and Brothers, 1940).

[7] *Agler* v. *Michigan Agricultural College*, 181 Mich. 159, 148 N.W. 341 (1914).

[8] *White* v. *City of Boston*, 226 Mass. 517, 116 N.E. 481 (1917).

[9] *Lesuer* v. *City of Lowell*, 227 Mass. 44, 116 N.E. 483, L.R.A. 1918F, 197.

[10] Comp. Stat. 1922, Sec. 3038, following the adverse decision in *Ray* v. *School Dist.*, 105 Neb. 456, 181 N.W. 140 (1920).

[11] *East St. Louis Bd. of Ed.* v. *Indus. Comm.*, 298 Ill. 61, 131 N.E. 123 (1921).

[12] *Bd. of Ed.* v. *Indus. Comm.*, 301 Ill. 611, 134 N.E. 70 (1922).

[13] *Beeman* v. *Bd. of Ed.*, 195 App. Div. 187, 357 N.Y.S. 213 (1921).

[14] *Bailey* v. *School Dist.*, 204 App. Div. 125, 198 N.Y.S. 247 (1923). See also, *Pahler* v. *City of Minot*, 49 N.D. 960, 194 N.W. 695 (1923); *Whiteneck* v. *Board of Commissioners*, 89 Okla. 52, 213 P. 865 (1923).

[15] *Ponca City Bd. of Ed.* v. *Beasley*, 157 Okla, 262, 11 P.(2d) 466 (1935).

[16] *School Dist.* v. *Indus. Comm.*, 194 Wis. 342, 216 N.W. 844 (1928).

[17] *Murphy* v. *Constitution Indemnity Co.*, 172 Ga. 378, 157 S.E. 471 (1931).

[18] *Harvell* v. *Kingston Township School Dist.*, 106 Pa. Super. Ct. 89, 161 A. 559 (1932).

[19] *Foyle* v. *Commonwealth*, 101 Pa. Super. Ct. 412 (1931).

[20] *Hoover* v. *Independent School Dist.*, 220 Iowa 1364, 264 N.W. 611 (1936); *Jones* v. *Indus. Comm.*, 64 Ohio App. 36, 27 N.E. (2d) 783 (1940). The decisions are consistent with other decisions of state courts concerning the status of such employees. Liability has been imposed on the sponsoring public agency by statute in Idaho. See Idaho Code Ann., 43-903 (1).

[21] *Mayor and Council of Baltimore* v. *Schwind*, 175 Md. 60, 199 A. 853 (1938).

[22] *Nevada Indus. Comm.* v. *Leonard* (Nev.), 68 P.(2d) 576 (1937).

ficulty in finding authority in the state statutes that permits school districts to make the payments involved. Such authority is found in such powers of boards of education as that to arrange for "the support and maintenance of the schools." The legal objections that "damages" for personal injuries are not expenditures for "school purposes" do not extend to "compensation" paid under authority of the statutes.[23]

2. Costs and Benefits

Both costs and benefits of workmen's compensation insurance of school employees vary widely in the different states. Methods of administration are not uniform,[24] and private insurance companies carry the risk in many states. Where state funds are in operation the school districts are commonly given dividends in some form when the total of the premiums collected exceeds the benefits paid plus the costs of administration.[25] There are wide variations in the rates charged for the several classifications of employees and in many other details.[26]

Compensation provisions are far more expensive to the public than regular liability for injuries under the common law. During the period 1920–38 the Los Angeles school districts, for instance, paid net premiums of $448,334.95 on their employees and the latter received benefits of $361,100, leaving a cost of $87,234.95 for administration by the state fund.[27] This compares with a total expenditure of $43,531.52 for tort liability to pupils and the general public over the period 1924–39.[28]

C. Extension of Compensation Provisions to Pupils

The principal purposes of tort liability based on fault are to encourage careful conduct and to compensate those who suffer from breaches of duties of care. Where there is no fault, or where there is fault by both parties, the common law does not attempt to distribute losses from personal injuries, but rather leaves them where they fall. When an actionable tort has resulted in a recovery of damages the purposes of the law are achieved equally in theory; the tort feasor is punished, future breaches are deterred by the payment of damages, and the victim is compensated for his loss. There is reason to believe that, except where there is fraud or lax administration of the law, the punishment and warning factors operate more effectively than those which compensate tort victims. Litigation and fear of litigation are effective deterrents regardless of whether the injured person recoups his financial loss as a result of his suit.

But tort recoveries are slow and irregular, the defendant's fault must be established, costs of litigation are high, and damages are not always distributed according to the merits of the claimants.[29] In addition, tort liability is in effect against school districts in only a few states. Thus, although the theory of compensation without regard to fault has seldom been applied to pupils, it seems fair to inquire whether both incentives for careful conduct and prompt and reasonable compensation for accident victims might be assured by bringing pupils within the terms of the statutes. There are obvious advantages to an emphasis on compensation rather than the common law emphasis on fault. Most states have administrative machinery in operation, and personnel is more or less skilled in the administration of compensation. The problem of tort responsibility of the school district would be solved by compensation provisions so far as pupils are affected, and the distribution of losses from accidents could be effectively administered.

Nevertheless, it is submitted that the disadvantages of such an extension of compensation far outweigh the advantages. Even if it were possible to write compensation insurance on school children at reasonable fixed rates per child, the eventual rate would depend upon experience with the provisions, and there is reason to believe that compensation will operate less effectively for school children than for industrial workers or public employees. The statutes provide compensation in such amounts that a period of inactivity by an industrial employee results in the receipt of less money than would have been earned during employment for the same length of time. School children have no such earnings; it would be undesirable and would invite fraud to create a situation in which it would be profitable for parents to keep their children from school for the ostensible purpose of recovering from accidental injuries. Adult employees also enjoy protection partly in order to protect their dependents; the same reasons do not exist in regard to school pupils.

Within some limited situations the objections to compensation insurance for pupils do not seem to apply with full force. In transportation of pupils by bus, for instance, there is much in favor of the practice in North Carolina, where payment of any sum up to $600 for either medical or funeral expenses is provided by statute for each child injured or killed in a school bus accident, regardless of negligence.[30] This statute merely carries school-bus accident protection for pupils beyond the criterion of the driver's negligence, granting a fairly adequate measure of protection without reference to fault.

Nevertheless, the incentives for prevention of accidents and proper care for accident victims are seldom as strong under compensation provisions as under regular tort liability. These incentives can be preserved in part by an arrangement whereby the employer pays the compensation more or less directly to the person injured. There should be close relationship between the prevention of accidents and lower local taxes for compensation purposes — a relationship made obvious to local officials. When a school district pays a fixed compensation insurance premium into a state fund on a state-wide basis, the costs to the district are only slightly altered by its own accident rate, even though the rate would eventually be determined by the compensation experience of the state as a whole. The Ohio plan of a sliding scale of premiums by counties is an excellent arrangement for preserving incentives to safe conduct and prevention of accidents by local authorities. It enables public employers to plan accident prevention with a saving of as much as 75 per cent of their compensation premiums in view as a tangible reward.

In general, provisions for compensating public school employees for injuries will doubtless continue to move toward the protection of these employees with increasing thoroughness. So far as salaried employees are concerned, this trend seems to be in the direction of sound public policy. These employees have been unfairly discriminated against in the judicial interpretations of the statutes thus far, but the courts are becoming more liberal in recent years. We may hope that judicial interpretations will increasingly facilitate the inclusion of educational employees within vaguely phrased compensation statutes, as additional courts discover that times have changed since decisions to the contrary were handed down several decades ago. But, while it may be desirable to extend compensation provisions to pupils under some special circumstances, such as during transportation in school buses, social security has probably not yet developed sufficiently to make compensation insurance feasible for the protection of all pupils throughout the school day.

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[23] *Woodcock* v. *Bd. of Ed.*, 55 Utah 458, 187 P. 181, 10 A.L.R. 181 (1920), and cases cited.

[24] Administration of workmen's compensation laws has been placed in a special commission, board, court, bureau or commissioner in almost all the states. Under these arrangements there is less formal procedure than in the regular courts. The latter administer the compensation laws only in the comparatively small states of Alabama, Louisiana, New Hampshire, New Mexico, Tennessee, and Wyoming, and even in these states there are special administrative officials and procedures. The right of appeal to the courts is expressly provided for in all states except Nevada. In 12 states appeals are limited to questions of law alone.

[25] Thus the rate in Ohio is 25 cents per $100 of pay roll, but it is flexible to the extent of 75 per cent either up or down to the districts of any county, depending on the experience of that county. In Arizona a 34 cent rate for school employees produced $22,163 in 1938. The losses for the year were $11,687 and the dividend payments $7,244.

[26] During 1940, Idaho teachers and clerks had a rate of 15 cents, bus drivers 80 cents, and janitors $1. In California the rate for teachers was 13 cents, clerks 8 cents, and other employees $1.20. The basic rate for all school employees was 25 cents in Ohio, 30 cents in North Dakota, 34 cents in Arizona, and 46 cents in West Virginia. Computed on the basic rates quoted, the premiums for a small school district which employed 20 teachers at an average of $1,800 each per year, two janitors at $1,200 each per year, two bus drivers at $900 each per year, and one clerk at an annual salary of $1,200 was $98.16 in California, $140.76 in Arizona, $94.10 in Idaho, $103.50 in Ohio, and $190.44 in West Virginia.

[27] *Annual Report of Business Manager to the Los Angeles City Board of Education*, pp. 55–56 (Feb., 1940).

[28] Reports of J. C. Anderson, Claims Agent, Board of Education, Los Angeles.

[29] Edgar Fuller and A. James Casner, *Municipal Tort Liability in Operation*, 54 Harv. Law Rev. 437 (1941).

[30] North Carolina Laws of 1935, c. 245; 1939, c. 267.

The Elementary School Tunes In

Dr. William H. Johnson[1]

The possibility that the use of the radio could play more than a trivial and occasional part in the work of the elementary school in Chicago was first discovered during an emergency. In September, 1938, an epidemic of infantile paralysis spread so rapidly through the city that the local board of health ruled that the closing of the elementary schools was necessary to prevent the further spread of the disease. While the closing order was in effect for only about 10 days, an effort was made to instruct pupils over the radio to obviate a considerable loss of schooltime at the beginning of the term. Arrangements were made with several large broadcasting companies for cooperation in a program of instruction designed to reach the pupils individually at home and thus maintain interest in schoolwork. Lessons and instructions for home study were broadcast by regular teachers for children in the upper grades. Assignments were provided as the bases for later reports to be made by the children upon returning to school. When the results of this emergency project had been carefully checked, it was agreed, that while such direct teaching by radio left much to be desired, there were obviously important values to be realized through this aid to teaching.

With this incident as a beginning, plans were considered for utilizing the radio whenever practicable, though principally as a tool for the enrichment of elementary schoolwork. A central radio council, or bureau, was established in the superintendent's office and given the task of planning a program. In the comparatively short period of two years, a program has been developed for the use of radio broadcasts which has won the cooperation of the school people of Chicago.

In developing this program, the radio council has constantly sought the advice and help of committees of teachers and principals. A systematic effort has been made to obtain detailed reports of the effectiveness of the various broadcasts as revealed by the reactions of elementary pupils. The extent of the use of these broadcasts has been left to the judgment of the principal and teachers in each school. The increasing use of broadcasts, therefore, is indicative of the fact that the teachers are finding substantial educational values in the radio.

In our plans thus far, there has not been any effort, with the exception of the incident at the beginning, to utilize radio for direct subject-matter instruction. It is our opinion that there is no substitute for the teacher in the educative process, and that the radio will be found most profitable as a means of adding variety, interest, and enrichment to the regular activities of elementary classes.

Superintendent William H. Johnson himself uses the radio. The present photograph was taken when Dr. Johnson addressed 38,278 members of the last graduating classes.

A survey, made by a committee of district superintendents, principals, and teachers during the year past reveals the fact that every elementary school owns or uses one or more radio receivers, with a city-wide average of four per school. Twenty schools are equipped with central sound systems having outlets in each room, others utilize the combination radio, recording machine, playback, and public-address system. Of the total of 1461 radio receivers in the schools, 1183 are owned by the respective schools, and 278 are borrowed from various sources.

In this survey, it was found that a total of 195,044 pupils in 5146 classes listened regularly to the weekly broadcasts, spending an average of 10 to 12 minutes in *preparation* for the broadcast, 15 to 20 minutes *listening*, and 10 to 12 minutes in a *follow-up* activity. The 15-minute broadcast is used most generally. The relative desirability of the various quarter hours of the day used for school reception was found to be as follows:

TABLE I. Preferences of Schools for Quarter Hour Periods

Quarter hour beginning at	*Voted Best*	*Voted Next Best*	*Voted Third Best*	*Aggregate*
2:30	62	49	42	153
1:15	60	30	19	109
1:30	40	39	26	105
1:00	30	13	14	57
2:15	24	26	22	72

The following tables (IIA, IIB) indicate the extent of classroom use of the various programs during the past semester:

Disciplinary problems vanish when a group rehearses or broadcasts over the radio. The intense interest of a typical group is well illustrated above.

[1]Superintendent of Chicago Public Schools.

TABLE IIA. Radio Council Programs; Summary of Radio Use in Classrooms, Spring Semester, 1939–1940

Programs	*No. of classes listening*	*No. of pupils listening*	*Average no. min. preparation for broadcasts*	*No. of min. in programs*	*Average no. min. in follow-up activity*
Hour of Magic Books (WJJD)..	783	28,159	10	15	10
Pieces of Eight (WJJD)	839	20,683	10	15	10
Open Sesame (WIND)	355	14,312	10	15	10
Your Science Storyteller (WJJD)..	301	16,355	10	15	15
Makers of Chicago (WJJD)	324	11,757	10	15	10
That's News to Me (WIND)	263	10,059	10	15	10
Let the Artist Speak (WIND)	424	17,213	15	15	15
Student Chorus (WJJD)	272	10,798	10	15	10
Let's Tell a Story (WIND)	283	14,795	10	15	10
Science Reporter (WIND)	384	15,576	10	15	14
Battle of Books (WHIP)	189	7,461	10	15	15
TOTALS — Radio Council Programs	4,417	167,168	10–11	—	10–12

TABLE IIB. Programs Other Than Radio Council

Programs	*No. of classes listening*	*No. of pupils listening*	*Average no. min. preparation for broadcasts*	*No. of min. in programs*	*Average no. min. in follow-up activity*
Let's Sing (WLS)..	145	5,201	10	15	10
Milestones of Progress (WLS)	43	1,599	10	15	10
Adventures of Polly and Pat (WLS)..	163	4,744	10	15	10
A Book to Read (WLS)	17	550	8	15	13.5
Magic of Music (WLS)	51	1,757	7	15	12
New Horizons (WBBM)	31	1,141	7	30	9
Tales From Far and Near (WBBM) ..	65	2,330	10	30	11
This Living World (WBBM)	23	843	12	30	13
Frontiers of Democracy (WBBM)...	26	1,001	10	30	14
Damrosch (NBC) ..	190	5,807	11	30	11
Other Programs.....	75	2,903	10	—	10
TOTAL (Other than Radio Council Programs)	729	28,876			
GRAND TOTALS (Radio Council and Others).....	5,146	195,044			

It is interesting to note that the opinions of principals as reported in this survey indicate a wide area in which radio use is becoming effective. Report was made that activities in various classes had been definitely influenced by the radio broadcasts as follows:

Art, 93 schools
Music, 74 schools
Reading and library, 74 schools
Science, 54 schools
Literature and composition, 38 schools
Social studies, 36 schools
Dramatic work, 36 schools
Trips to museums and exhibits, 36 schools
Club activities, 25 schools
News and safety programs, 20 schools
Assembly activities, 8 schools

The plans of organization to utilize broadcasts vary according to the facilities, program, and personnel of each school. The following summary of procedures used by the schools in setting up the service is indicative of the type of approach used:

Broadcasting is invariably a happy experience as this group of Chinese children and their Chinese teacher evidences.

1. Appointment of a teacher as radio chairman, 288 schools.
2. Appointment of a radio committee of teachers, 90 schools.
3. Establishment of a radio bookshelf in the school, 92 schools.
4. Collection of professional library books on radio use, 42 schools.
5. Attendance of principals at meetings and conferences pertaining to the use of radio, 186 schools.
6. Attendance of teachers at conferences and meetings connected with the use of the radio in the classroom, 300 schools.
7. Distribution of information regarding worthwhile radio programs to the homes of pupils, 244 schools.
8. Planning a program in cooperation with the local parent-teacher association, 139 schools.
9. Schools which have installed a combination radio, recording machine, playback and public-address system are able to utilize many programs otherwise not possible because of difficulty in arranging a schedule for listening to direct broadcasts.
10. Some schools requiring the maximum use of available radio receivers have organized a committee of pupils who distribute the receiving sets to the various rooms for daily use. These pupils set up the radio, tune in the station for the teacher, and call for the equipment at the close of the school day. One member of the committee usually has charge of all publicity concerning the broadcast schedule, others handle complaints involving radio repairs, and still others distribute programs and supervise the radio shelf in the library.

Advantages of Radio as a Teaching Aid

An effort was made in the survey to ascertain the opinions of teachers and principals in the elementary schools as to the advantages and limitations of the use of the radio as a teaching aid. A summary of remarks by the *principals* indicates that the following are considered general advantages:

1. Use of the radio stimulates new interest in the various subjects.
2. It gives excellent training in the art of listening.
3. It widens the perspective of children.
4. It is an excellent influence for good diction and vocabulary building.
5. It develops an interest and appreciation for good broadcasts, thus teaching discrimination in choice of programs.

Typical group opinions expressed by teachers in individual schools are quoted as follows:

Bateman School: Radio supplies a dramatic way of presenting material, a feature often lacking in textbooks.

Edgebrook School: Radio brings outside material into the classroom — stimulates — interests — motivates.

Belding School: Radio is a stimulating medium, develops wider horizons for children, reduces the purely academic atmosphere in learning, provides supplementary material, and develops attentive listening habits in audience situations.

Garvey School: Radio covers units not available otherwise. It broadens the outlook of both teachers and pupils.

Haugan School: Radio gives variety — teaches pupils to listen attentively and intelligently and to take notes accurately and with facility — sets standards of correct speech.

Volta School: The advantages of radio as a teaching aid far outweigh its limitations. If radio lessons are properly prepared and right attitudes fixed for the listeners, broadcasts can be as effective as any of the visual aids, possibly more.

Sayre School: Pupils having difficulty in reading find it easier, sometimes, to listen.

Langland School: Radio gives the slow reader an equal chance with the fast reader through use of his auditory powers. The pupil is influenced through greater realism made effective through sound effects and other equipment.

Scott School: Aside from acquiring interesting information teachers and pupils receive from broadcasts a desire to do more research. It is the stimulation of new ideas.

Difficulties in Teaching by Radio

While the use of the radio is becoming more widespread in elementary schools — a definite evidence of its usefulness as an aid to teaching — it is recognized that there are both basic and practical limitations. Radio cannot be expected to displace the teacher in the classroom, nor act even as a temporary substitute. The use of the radio as an aid to learning can only be effective when the teacher prepares the class beforehand for listening to the broadcast, and, after the listening period, assists the pupils in integrating the broadcast materials with the subject matter studied in the classroom.

The most significant basic limitation in the use of the radio as a teaching aid is to be found in the difficulty of preparing broadcast scripts which will take into account individual differences among the children. In elementary schools where much emphasis is placed upon techniques of individual instruction, it cannot be expected that broadcasts can most effectively serve as a teaching aid except in programs of a general character.

Practical difficulties which operate to limit the use of the radio vary with the respective schools and the types and numbers of receivers available. The following statements, typical of the difficulties cited by principals in this survey, indicate the need for a continued study of the practical phases of radio use:

1. Schools not having playback and recording equipment have difficulty in synchronizing the teaching program with the broadcasts at the most effective stage in the study of the respective learning units.
2. The techniques of teaching in elementary schools, especially in reading and spelling, are too highly specialized and individualized to utilize radio aids effectively.
3. Co-ordination of unit materials and the subject matter of radio broadcasts is difficult.
4. Radio programs often provide insufficient repetition for effective instruction.
5. Programs are frequently lacking in the explicit directions required by younger children.
6. Unless classroom learning units are planned to fit radio programs there is generally a lack of relationship between the radio programs and the classroom activity.
7. A number of schools report that programs proceed too rapidly and that this makes it difficult for the younger children to give attention.
8. Broadcasts do not present opportunities to stop for discussion at vital points.
9. Children are accustomed from experience at home to consider the radio a medium of entertainment, and are, therefore, so inclined in school.
10. Radio instruction lacks the personalized influence of the teacher who helps pupils to find and organize material for study purposes.
11. Programs often lack sufficient action to hold the interest of the children.
12. The broadcast vocabulary too often is difficult for the lower grades, especially in foreign-speaking neighborhoods.
13. It is difficult for the class teacher to discover whether the child is comprehending the broadcast until it is over. Then it is usually too late to do much about it.

It is evident from our study that careful attention and thought must be given to the recognized advantages and limitations of this new medium. Our radio council is constantly on the alert for suggestions, criticisms, and information in their efforts to adapt their broadcasts to teaching requirements. Every broadcast is critically auditioned. The radio council prepares and distributes *in advance* to all schools a weekly program of broadcasts designed to acquaint the teachers and pupils with the experiential background necessary for the understanding of each program.

Programs which are produced in the studios of the radio council are adapted to the abilities and interests of the pupils in the respective grades. In order that the programs produced will be effective aids in teaching, script writers of the radio council frequently visit classrooms and listen to the broadcasts to observe the reactions of the children. In this way the council is provided with up-to-the-minute evaluations and criticisms, on the basis of which, necessary revisions can be made.

Comment is continually sought from teachers and principals as well as pupils in order to ascertain the effectiveness of each program. Typical of these efforts is the following questionnaire which was sent to the schools for the purpose of securing an appraisal of a particular program during the fall semester of 1939. One hundred thirty schools made reports and the following is a summary of their reactions to the questions asked:

SUMMARY REPORT OF QUESTIONNAIRE ON "MAGIC BOOTS" SERIES

(First semester 1939–1940)

	Yes	*No*
1. *What is your general opinion of this program —*		
Program was good?	98	
Average?	26	
Poor?	6	
2. *How would you judge the educational content and the different radio techniques of this program —*		
Related to the course of study as review material?	79	
As preview material?	25	
Correlated with current unit?	26	
Above your grade level?	12	118
Below your grade level?	9	121
Sufficient emphasis and repetition given to the leading theme?	115	15
Insufficient emphasis?	15	115
Too many facts presented?	7	123
Too few?	2	128
Vocabulary too difficult?	15	115
Too elementary?	2	128
Introductory scene too long?	19	111
Too short?		130
Too much straight narration?	8	122
Too little?	2	128
Too many changes of scene?	14	116
Too few?		130
Transitions from scene to scene, clear?	111	19
Supplemented textbooks with timely material?	61	69
Vitalized historic and geographic material?	8	122
Presented current events in dynamic form?	6	124
Enriched the scientific background?	34	96
Presented stimulating research material?	19	111
Presented literature in vivid, dramatic form?	98	32
Entire program too rapid in pace?	28	102
Too slow?	2	128
Sufficient contrast in voices to identify character?	113	17
Speakers talked too rapidly?	30	100
Too slowly?	4	126
Speakers' voices distinct?	82	48
Voices pitched too high?	23	107
Too low?	15	115
Sound effects too intrusive?	23	107
Sound effects realistic?	89	41
Music too intrusive?	12	118
3. *What specific pupil activities grew out of the broadcast?*		
A. Questions	61	
B. Informal discussions	58	
C. Reading newspapers	1	
D. Reading books	23	
E. Seeing related movies	5	
F. Listening to other radio programs of same type	5	
G. Telling stories	68	
H. Writing poems — slogans — songs	10	
I. Music activities	33	
J. Art activities	76	
K. Dramatics	31	

The use of the radio for teaching purposes is as yet in its infancy in the Chicago public schools. From the time of its origin during an emergency, our use of the radio has developed to a level of usefulness which will compel our future attention to the nature of its sphere of action and to the perfection of its proper participation in the educational process.

NEW PROPHETSTOWN SALARY SCHEDULE

The board of education at Prophetstown, Ill., has approved a salary schedule, which sets up three classifications of teachers based on professional study in a college or university and the possession of one or more degrees. The schedule also sets up a basis for the calculation of increases in salary, to be paid (1) for service outside the city schools, (2) for each year of service in the city schools, and (3) for each block of fifteen semester hours of approved advance study.

Teachers with a bachelor's degree and having completed 120 semester hours of college or university study, after one year of service, will be paid $1,116, and will advance to $1,260 at the end of five years; teachers with 135 hours of college credit will begin at $1,152, and will advance to $1,476 at the end of ten years; teachers with 150 or more college credits will be paid $1,188, and will advance to $1,620 at the end of 13 years.

Teachers without a bachelor's degree, and having 60 hours of college or university credit, after one year of service will be paid $900, and will advance to $972 at the end of three years; teachers with 75 college credits will be paid $936, and will advance to $1,080 at the end of five years; teachers with 90 hours of college credit will be paid $972, and will advance to $1,188 at the end of seven years; teachers with 105 college credits will be paid $1,008, and $1,296 at the end of nine years; teachers with 120 or more college credits will be paid $1,044, and $1,342 at the end of nine years.

Teachers with a master's degree, and having 150 college credits, after one year of service, will be paid $1,260, and will advance to $1,692 at the end of 13 years; teachers with 165 college credits will be paid $1,296, and $1,728 at the end of 13 years; teachers with 180 college credits will be paid $1,332, and $1,764 at the end of 13 years; teachers with 195 credits will be paid $1,368, and $1,800 at the end of 13 years; teachers with 210 college credits will be paid $1,404, and $1,836 at the end of 13 years; teachers with 225 college credits will be paid $1,440, and $1,872 at the end of 13 years.

It is provided that $18 will be paid for each year of service outside of the city school system; for each year in city schools $36 will be paid; and for each block of 15 semester hours of approved advanced study $36 will be allowed. Married men teachers, living in the city, will receive $228 per year over and above the regular salary.

No married woman teacher will be given consideration for a full-time teaching position. Any woman teacher who marries must notify the board in writing, and her contract automatically becomes void.

Business Trends and Opportunities for Returning Servicemen

Willard S. Ford[1]

All satisfactory considerations of the readjustment of servicemen in the postwar period are conditioned on the successful conclusion of the present war. We are now aware, after four months of actual participation in a declared war, that this task is going to require the most complete marshaling of men, machines, and resources which has ever been accumulated in the history of the world. This objective, at the present time, must have precedent over all others.

It is equally obvious that the primary consideration in the conduct of the war and the postwar adjustment is the perpetuation and enrichment of the American way of life. The unprecedented resources and organization required for successful prosecution of the war, with its consequent disturbance of the normal practices of American life, itself, constitutes a major threat to democracy as we have enjoyed it. It is, therefore, not only appropriate but very essential that even in the time when there is an all-out effort for military success, that there should be intelligent, thoughtful, careful planning of the readjustments which must surely follow the completion of the present struggle. The history of the social, economic, and political struggle that has been almost continuous since the Armistice on November 11, 1918, is the best evidence of the results of lack of planning and program for postwar adjustment, and the indication of the much greater importance at the present time because of the increased magnitude of World War II.

Business Trends and Postwar Economy. The analysis of business trends is essential for an effective readjustment of servicemen and industrial workers. Every student of economics is familiar with the ups and downs of the business cycles and their relation to international conflicts. If we draw our conclusions concerning the business conditions which will follow the present war from the results of previous, similar situations, the prospect is gloomy indeed, and we may well expect all of the disastrous social results which may come with the darkest and deepest and longest depression of all history. Much has been learned, however, from the past war, and leading economists and governmental experts are convinced that proper planning and proper control may not only enable us to avoid the tragic results of a disastrous depression, but may enable us to realize a higher standard of living for the masses of the population of this country and an improved economic and social status for the peoples of other countries of the world. The business trends which will be the guides in the readjustment of industrial workers and servicemen may best be predicted from the plans and programs which are formulated and prepared, judged by the background of economic history.

The organization and activities of the National Resources Planning Board, established July 1, 1939, through the consolidation of the functions of the National Resources Committee and the Federal Employment Stabilization Office in the Executive Office of the President, is the most hopeful sign for advanced and thorough, intelligent planning for this country. Great Britain has equally important committees at work. Arthur Greenwood and his staff in the Ministry of Reconstruction was established in January, 1941. Harold Laski has a blueprint of reconstruction, calling for nationalization of land, banks, and transportation.[2]

The size of the task of reconstruction and reorganization is comparable and directly related to the task of armaments and prosecution of the war. The National Resources Planning Board estimates that there will be 23 million industrial workers employed in defense industry by 1944 and three and a half million in the armed forces of the government. The program of military strength has been more than doubled by the President in his recent announcement, and the extension of appropriations for the construction of the navy would probably require a revision of the number to be employed in that branch of defense industries. Based on the estimates of the National Resources Planning Board, approximately 50 per cent of all employed people in the United States will, by 1944, be members of the military forces of the country or engaged in the production of war materials. Stated simply, postwar reconstruction involves the re-education, the readjustment, the re-employment of 50 per cent of the nation's workers. Inasmuch as approximately 50 per cent of the national income is to be expended for war purposes, the readjustment also involves the redirection and the re-employment of income and capital representing half the productive capacity for goods and services of the entire country. The importance and difficulties of this responsibility are apparent to every thinking person.

Adjustment of servicemen is part of the total problem of readjustment, including defense-industrial workers, the employment of youth coming up to employable age, and large-scale redirection of our total national economy. While there is special obligation to those who have offered their services in the military forces, the possibility of a satisfactory adjustment of these men is closely related to the total problem.

Our Productive Capacity

The United States has led the countries of the world in its productive capacity even though it was not fully utilized until the present emergency. This capacity for production has been greatly increased. Two thousand four hundred new projects were initiated in 1940–41, at a cost of more than four billion dollars. One fourth of this expansion was for the production of explosives and armaments, and industrial plants which will be of little if of any use after the war is over. The remaining three fourths of the plant developments may properly be converted to peacetime needs. This greatly increased capacity includes the development of our steel mills, the establishment of aluminum plants, magnesium plants, the expansion of our machine-tool producing plants, the manufacture of electrical equipment and the development of home fabrication plants.[3]

A most significant factor in our ability to meet the reconstruction problems is this adequacy in the capacity of producing plants. There is an abundance of accumulated capital in the nature of tools, equipment, and plants to provide for the peacetime needs of our population.

Postdefense Needs

Our greatest resource is men at work, a resource which is lost forever when men are idle. An average absorption of two and one half to three million workers in the United States is normal, and a maximum absorption of four million in the peak years is all that can be expected. On this basis, the re-employment of industrial workers and servicemen would require a period of seven years of readjustment. This re-employment is necessary if normal economic life is to be secured. A modern nation cannot avoid balancing its total production-consumption budget. This can be done at a low level with a great deal of unemployment, inefficiency, and suffering, or it can be done at a high level with full employment, high efficiency, and a better life for all. According to the National Resources Planning Board, the central objectives of postdefense planning are:

1. We must plan for full employment for maintaining the national income at 100 billion dollars a year.

[1]Dr. Ford, who is superintendent of schools at Glendale, Calif., read this paper before a sectional meeting of the American Association of School Administrators, San Francisco, February 25, 1942.

[2]Alden Stevens, "The Great Unwinding," *Nation*, November 8, 1941.

[3]Alden Allen, "Our Capacity for Abundance," *Nation*, November 1, 1941.

2. We must plan to do this without requiring work from youth who should be in school, the aged who should be relieved if they wish it, and women who choose to contribute to the home, without asking anyone to work regularly more than 40 hours a week or 50 weeks a year, or to sacrifice wage standards which have been set.

3. We must plan to decentralize postdefense emergency activities as far as possible; to use to the utmost our system of modified free enterprise with its voluntary employment, its special rewards for effort, imagination, and improvement, its elasticity and competition; and to advance cooperatively under national and governmental leadership.

4. We must plan to enable every human being within our boundaries to realize progressively the promise of American life in food, shelter, clothing, medical care, education, work, rest, home life, opportunity to advance, adventure and the basic freedoms.

5. We must plan to make upbuilding America the keynote of the postdefense program, including both construction activities which will add to the national estate and service activities which will end malnutrition and increase the vitality, health, skill, productivity, knowledge, and happiness of the American people and thus add to our wealth and well-being.

Production of either private or public industry cannot be maintained for long unless there is a market for the goods produced. The maintenance of full employment for our citizens and the maintenance of the national income at 100 billion dollars a year are dependent upon the existence of adequate markets. The primary markets in the postwar period will be, as they have always been, in the United States of America. The fact that nearly a third of the population of this country have been maintained, in recent years, on a minimum subsistence level, offers the greatest opportunity for the extension of local markets. This, of course, will, necessitate the employment of these people to enable them to obtain the purchasing power necessary to acquire these commodities. Much of this improvement in the standard of living will result from a nation-wide program of constructive activities. A. A. Berle, Jr., assistant secretary of state, lists five such programs which constitute a postwar market.[4]

a) An urban reconstruction program in many American cities.

b) A program of public works along conventional lines.

c) A program of rehousing on a very large scale.

d) A program of nutrition in areas where more or better food is needed (40 per cent of the population).

e) A program of public health.

The National Resources Planning Board refer to the plans to expand service activities in furnishing medical service, entertainment, music, education, travel, personal and household care, repairing and all other services which go with a higher standard of living.[5]

Postwar Finance

Most serious-minded citizens are appalled by the enormous sums appropriated by Congress for the prosecution of the war. They are stunned by the mounting total of our national debt, and they are dreading the dark cloud of national bankruptcy. Berle has this to say of the problem of finance: "Finance is the easiest of the several problems we have to solve. Nevertheless it is the field in which we are going to have the greatest difficulty. The difficulty is not real; technically the solutions are sufficiently simple. The difficulty lies in people's minds and in their habits of thought." In answer to the question, Can we afford to pay for this war and can we afford a postwar economy? he gives this answer: When labor is available, materials and tools are at hand, and technical skill can be hired; then we can afford it. Money is useful only to buy goods and hire services, either now or later. The two real limits on the ability of this country to finance are the limits on the abilities to produce and the limits on the abilities to consume. So long as goods can be produced and may be consumed or used, they may be financed.

Adjustment of Service Personnel

The adjustment of military personnel after the Armistice in 1918 brings us many helpful lessons. The place of the public schools in maintaining an educational program and the value of retraining not only bridges the gap between service and employment, but enables the individuals to adjust to new circumstances. Adjustment from military life to civil pursuits is not easy. For those who are well established in civil life before they enter the service, the problem will be less difficult, but for youth who have never had the experience of personal responsibility as a part of a producing unit, this adjustment to financial independence is not easy. The field of rehabilitation of handicapped servicemen is another important field. The precedents which the public schools have established in the vocational training of defense workers should be followed in placing upon these public agencies the responsibility for retraining of ex-servicemen. The cooperation of federal agencies, particularly the Department of Employment, is already established and should be continued with the adjustments necessary in meeting the new conditions. Youth that is now invited to take part in defense industry at the age of 17 will not be needed by industry in the postwar period. Provision for an extensive and effective educational program for youth up to 21 years of age is an essential responsibility of the public schools. The experience of the CCC, the NYA, and the WPA indicates what may be done in the adjustment of this age group.

Prospects for Reconstruction

This country and the world will be a different country and a different world at the close of World War II. Some of the changes are apparent in the course of events. The future holds the possibility of disaster or great social progress. Again quoting Assistant Secretary of State, Mr. Berle: "If we have vision enough to recognize the situation for the opportunity it will be, we shall probably have relatively little difficulty. But if we try to find reasons for not meeting the problem, misery and want will boil into a social and political explosion out of which there will come a group ready to act, and their methods will not be nice. The point in tackling the subject now is to save the country from that period of distress and disorder. If we take advantage of it, this new era of modern technique will put into our easy reach a life which is rich and abundant beyond question." We must have the courage and intelligence to use the producing capacity which has now been made available and to make the social, political, and economic adjustments which will perpetuate the American way of life and bring an increased measure of democracy in extending the abundant life to all of our people and, in some measure, to all the world.

SCHOOL-BOARD MEMBERS "GO TO COLLEGE"

The school-board members in Pettis County, Missouri, attended college one day during the present school year. When the time came to plan the annual school-board meeting, authorized by law in Missouri, Mr. F. C. Scotten, superintendent of schools in Pettis County, asked that he be permitted to invite the board members of the county to come to the Central Missouri Teachers College for a demonstration day. President G. W. Diemer saw the point and invited every board member to spend the day on the campus. He even asked State Superintendent Lloyd W. King to come along and discuss rural school problems.

Following the invitation of President Diemer, 200 school-board members and 69 teachers attended the sessions. Of 70 schools in Pettis County, 69 had at least one member present.

The theme of the conference was "Adjusting the Educational Program to the War Crisis." Demonstrations were given in the fields of language arts, arithmetic, speech, science, social studies, functional grammar, and physical rhythm. In addition, there were a number of lecture and round-table programs, taking up such topics as Education and National Defense, Bullets From Gardens, The Library Serves a Nation at War, Visual Aids From the College Museum, and Prevention of Reading Difficulties. At the afternoon sessions, the program was reversed, giving everyone present an opportunity to hear both the lectures and the demonstrations.

A number of abstracts of the programs were prepared and a copy was mailed to each school in the county system.

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[4]A. A. Berle, Jr., "What Shall We Do Then?" *Fortune*, 1941.

[5]National Resources Planning Board, "After Defense, What?" *Post Defense Planning*, August, 1941.

Redlands' Lincoln Elementary School Expresses Inter-Americanism

Robert J. Forbes[1]
Herbert J. Powell[2]

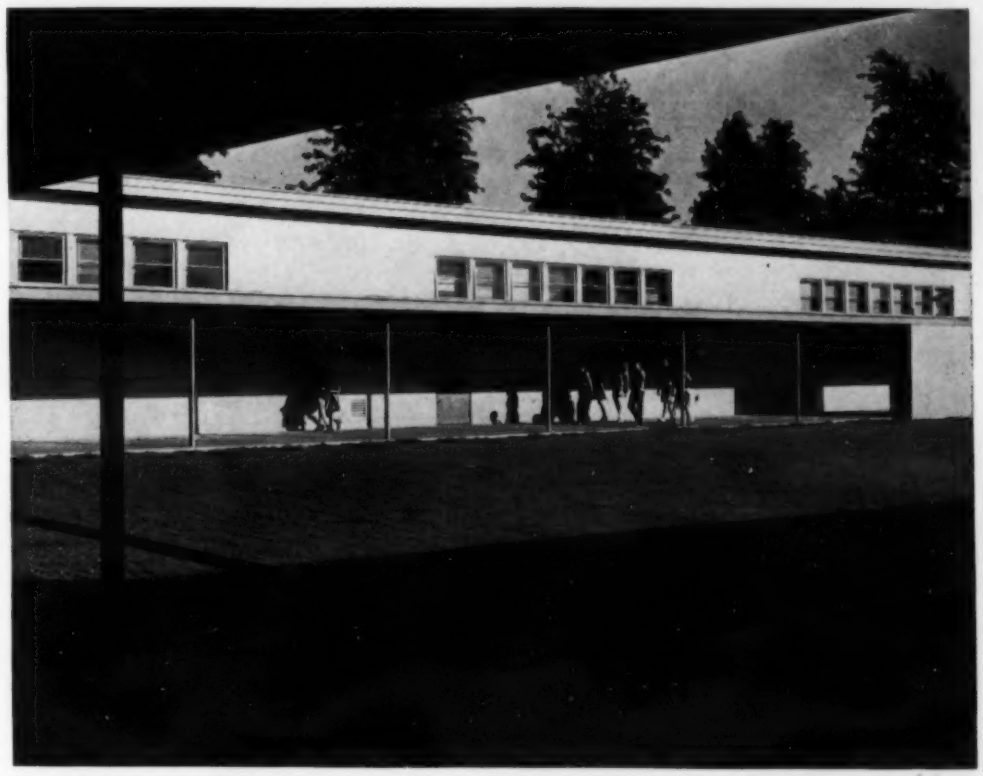
The new Redlands Lincoln Elementary School is a building which fills the demands of a particular climate and appeals to a large percentage of Latin-American children who attend.

Careful and long planning by Supt. John Branigan, his associate administrators of Redlands public schools, teachers, parents, and architect Herbert J. Powell, of the firm Marsh, Smith and Powell, Los Angeles, resulted in a structure incorporating several new and unique features not found in other Southern California schools. That since September, when the building was occupied, there has been little criticism is a compliment to the planners and builders.

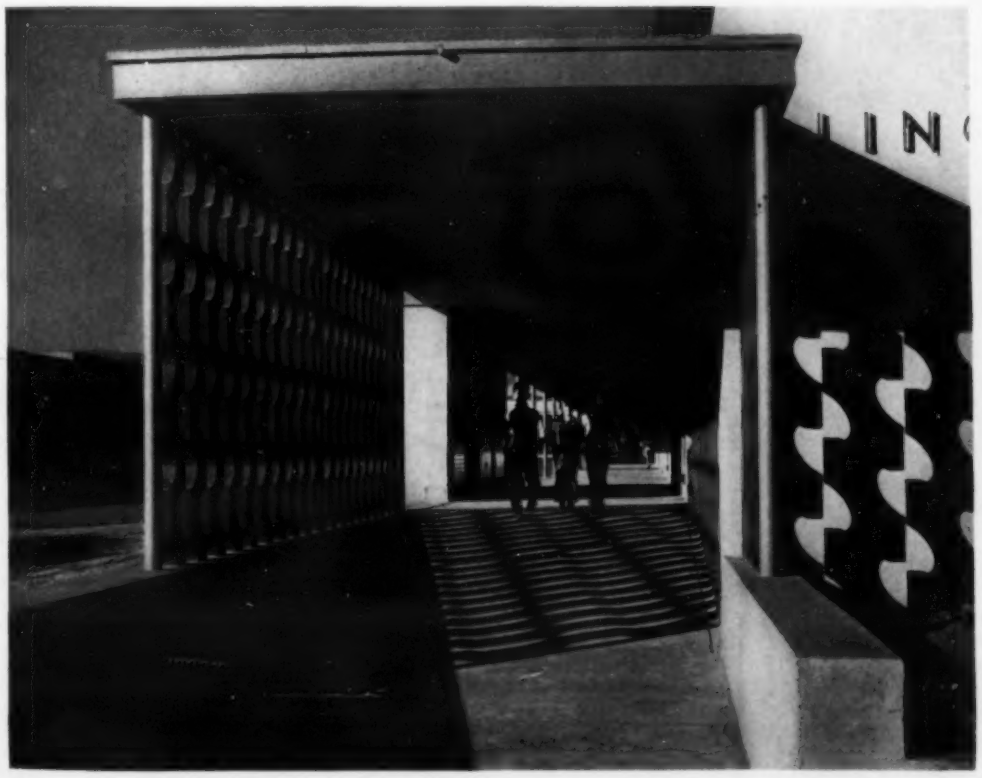
Lincoln School is a one-story, stuccoed structure covering 22,262 sq. ft., containing nine classrooms plus the kindergarten, the main office, four toilets, nurses' room, teachers' rest room, library, and shower baths. The office, nurses' room, and teachers' room adjoin one another for convenience.

The plan of the building is a U-shaped, open one. Four classrooms, the administrative offices, and library on the east-facing wing adjacent to the street connect with a kindergarten and an activity alcove adjacent to the north. Behind this wing, at a distance of approximately 70 ft., is a five-classroom wing,

[1]Director Public Relations, Redlands Public Schools.
[2]Architects Marsh, Smith and Powell, Los Angeles, Calif.



The courtyard between the wings of the building is partly terraced with concrete covered areas used for instructional purposes.



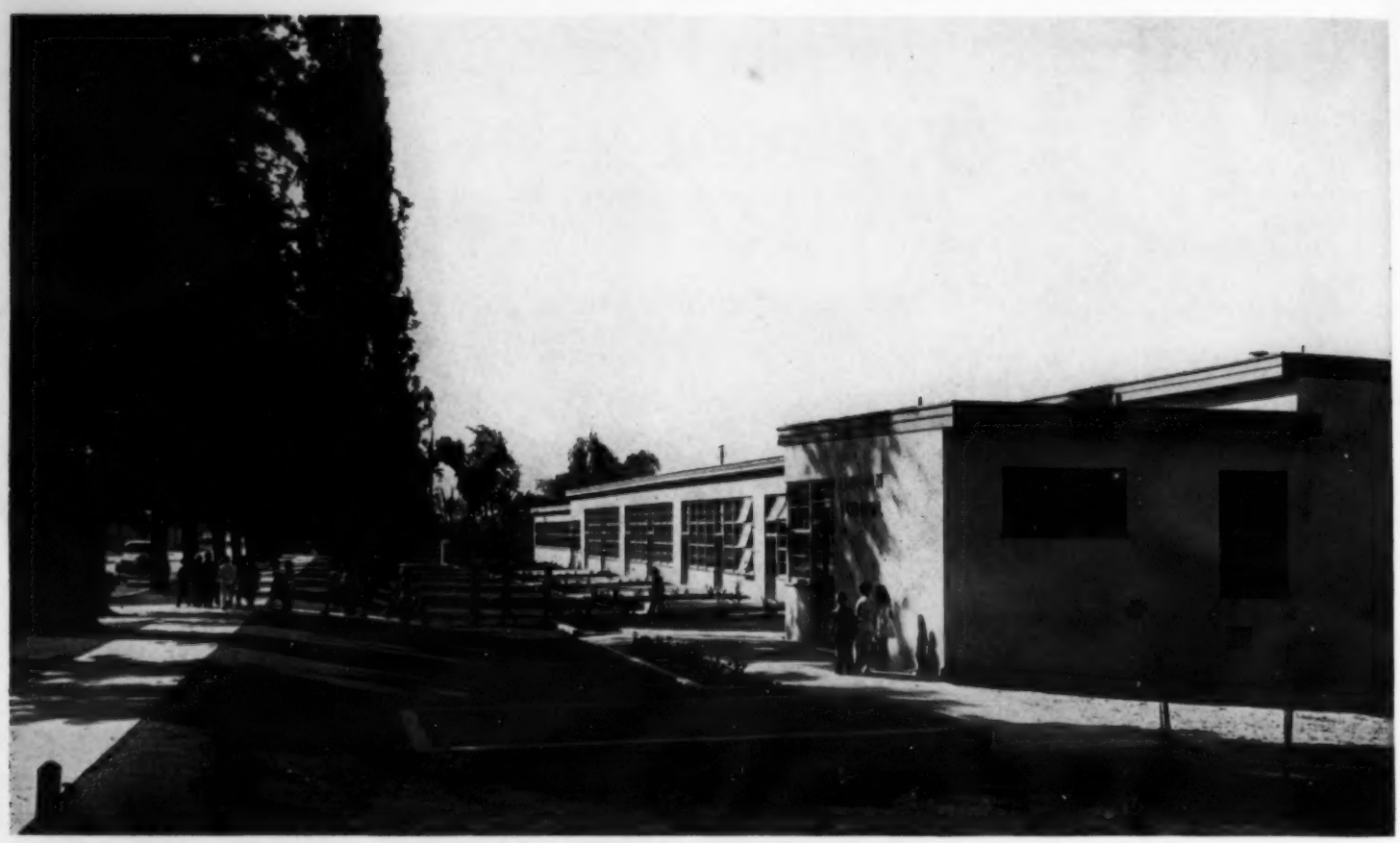
All corridors are directly open to air and sunlight.

the whole connected with low, open shelters. Each wing has its own boys' and girls' toilets and attractive tile drinking fountains. There is a single unit shower room on the east wing.

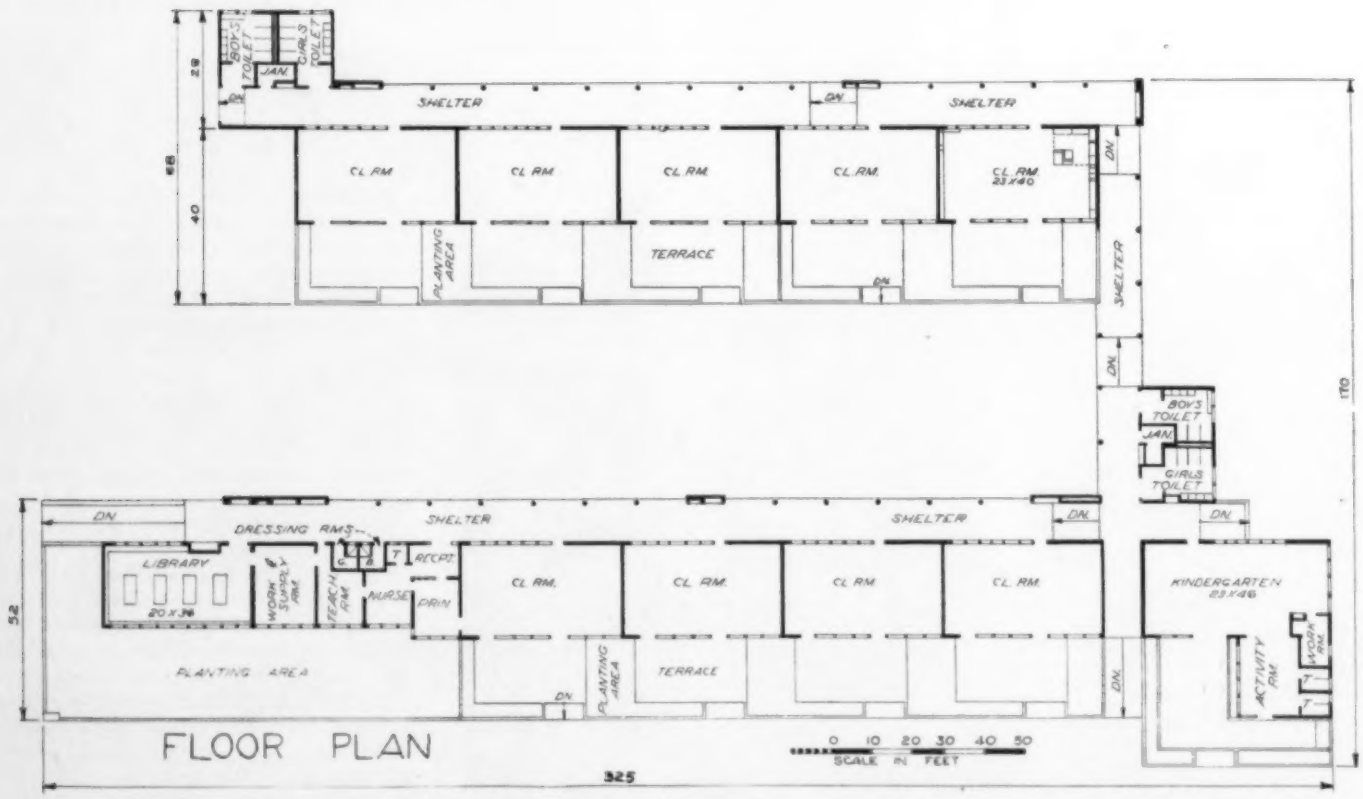
Inasmuch as this school has a large percentage of Latin-Americans in attendance, the color scheme of the building was formulated particularly for them. Colors are strong and carefully studied. The exterior stucco is a neutral pale cream, with eaves trim of a deep blue green. The windows are a warm olive and the doors are a purple brown. The ceiling of the shelter is blue, with circular supporting street columns painted a pale magenta. The cheerful colors of the classrooms are similarly carefully chosen, with asphalt floor tile and trim related in color values.

The classrooms are designed for the warm climate in Redlands. The natural east lighting of the rooms is supplemented by a group of seven high clerestory windows over the continuous shelter on the west. These windows can be fully opened and give a means of cross ventilation in hot weather. This is one of the first schools in California to be equipped with this comfort convenience. Each classroom is individually heated by its own gas furnace of the forced-air furnace type and controlled thermostatically. Circulation is facilitated by ventilating fans.

The space between the wings was designed



Redlands parents see the Lincoln School as a low, attractive building set in a tree studded playground. — Marsh, Smith & Powell, Architects, Los Angeles, California.



Lincoln Elementary School, Redlands, California. — Marsh, Smith & Powell, Architects, Los Angeles, California.

The classrooms are fitted with movable tables and chairs and informality is the prevalent note. Ventilation is facilitated by high breeze windows on the corridor side of each room.

to serve especially as a patio for the annual circus which the Lincoln School holds. For this reason, the shelters have cast concrete fillers which form a protective screen at the north end of the patio. This concrete shelter detail also occurs at the main entrance. Concrete terraces outside each classroom are used regularly for classwork. Green lawn fills in the space between the concrete terraces.

Over the entrance adjacent to the kindergarten are a pair of animals done in carved stucco by the Southern California Arts Project under the direction of MacDonald Wright. The animals carry out the theme of circus decoration. The Lincoln School is probably the first school job where a stuccoed frame building has relief work of this sort.

Each of the nine classrooms is equipped with a sink, wood closet, cupboard space beneath the sink, movable tool chests, and a zinc-lined clay chest. Cloak cupboards, or wardrobes, have outside ventilation.

Two of the rooms are equipped with movable desks and chairs fastened together, and the other seven contain chairs and tables. A unique method of providing more bulletin space was to equip the rooms with sliding boards which may be pulled down over the blackboards. Lighting is the semi-indirect hanging type, using plastic fixtures.

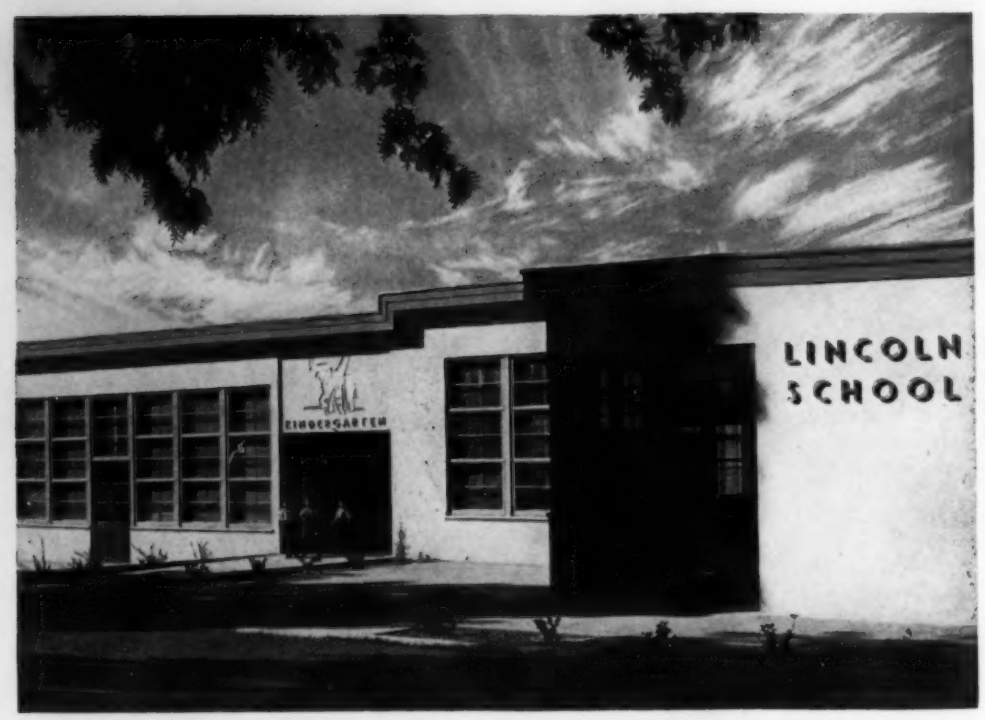
The cafeteria, moved from the old Lincoln site, serves 150 children each day at a cost of $2 per month per "family." Inasmuch as many of the families are large, the cost is exceptionally low. If there is but one child, the cost is $1 per month. Use is made of surplus commodities and the cost thereby lowered.

Attractive landscaping, supplementing the existing beauty of the schools' location, makes the plant one of the more beautiful ones of the locality.

Entire cost of the project to the Redlands district was approximately $82,000. Included in this figure is $7,500 allocated for additional land, equipment, grounds, and the moving and renovating of the cafeteria.

Local funds were raised through a bond

Each classroom is fitted with a work alcove where children may construct toys, color posters, and give expression to their recent learning.



The kindergarten entrance has an attractive animal motif above the doorway.

issue of $60,000, and the additional cost of $22,000 was paid out of direct taxation during the years 1939–42.

Works Project Administration funds, totaling approximately $70,000, supplemented the monies raised in the local district. Presidential approval of the WPA project was given on September 19, 1940; construction was begun in October, 1940; and the building was completed in September, 1941.

Future plans call for the erection of an auditorium, cafeteria, and industrial and home arts unit. Construction will be continued on these projects following the war.

Construction and Equipment Details

Exterior, stucco, wood trim.
Windows, awning type Universal.
Acoustical materials, acoustic plaster.
Heating and ventilating, forced air gas furnace, *Pacific*.
Temperature control, thermostats, *Minneapolis-Honeywell*.
Program clocks, *Holtzer-Cabot*.
Intercommunicating telephones, *Holtzer-Cabot*.
Plumbing fixtures, *Crane*.
Flush valves, *Sloan*.
Blackboards, *slate*.
Bulletin boards, cork, *Armstrong*.
Classroom seating, *Peabody Seating Co*.
Cafeteria, folding tables, *Mitchell*; chairs, *Peabody Seating Co*.
Library furniture, *Peabody Seating Co*.

This Business of School Feeding—XII

Policies and Practice

George Mueller[1]

It is the little things that count! More often seemingly "little things" loom large in the successful operation of a business. In this last of a series of articles, I find myself with an odd assortment of items — items that usually take first place in an informal discussion when two or more practical school cafeteria managers meet. These topics concern policy, and policy is extremely flexible and is often ruled by custom and circumstance. Still, feeding directors are always interested in how other schools handle or control the following problems.

There are today two major problems that confront most school and college feeding directors — food costs and the employment situation. Past articles have discussed at length the former and only a word is needed here. I cannot entirely agree with the cost breakdown that is advanced by most cafeteria directors. These usually list the food costs as 60 per cent of the total expenditures. In my experience, I have found that good management can give full value with an expenditure of 52 per cent to 55 per cent of receipts — often better than poor management produces with 65 per cent food cost. The best I can conclude is that food costs may be extremely variable and that an average or above-average food cost does not mean ipso facto full food value.

The problem that is becoming acute in school cafeteria management, and promises to become increasingly so, is the problem of employment. Wages paid in school cafeterias, though comparing favorably with those paid in commercial places, cannot compete with war industries. Even without this competition, there is certainly an obligation to increase wages paid because of rapidly rising living costs. Kansas City has always been particularly fortunate in obtaining excellent help in its school cafeterias. Our policy, in brief, regarding compensation has been to pay at rates that compare favorably with those paid elsewhere. Wages were paid weekly beginning with opening of school and extending one week beyond the close of school without deduction for holidays and with a liberal policy regarding personal sick leave. Employees have never been limited as to their meals — with the understanding, of course, that no choice tidbit be held back from possible sale. Uniforms and laundry are paid by the cafeteria, and employees are now enjoying their third pair of work shoes in as many years, given them by the cafeterias. From observation, this latter cost seems justified by increased foot comfort of the employees and also by a general appreciation on their part for this, I believe, unique and added consideration. In response to student interest, all our employees wear name badges so that they may become known personally to those whom they serve. The cafeteria also bears the cost of complete physical examinations required by state law and usually costing three to five dollars. By contracting for all of our employees, this cost is considerably reduced.

In the past, every cafeteria director proudly exhibited her method and results in a breaking down of the cost dollars. But this is war and demands, it seems to me, a radical change in the cafeteria budget. First the percentage set aside for food and labor must be adjusted upward. Secondly, this is the time to suspend the appropriation for reserve, if at all possible. Fixed charges — water, electricity, and gas — cannot be altered but their percentage of the whole will decline as receipts increase.

Center Stage — Price Control

Government control of prices still holds the center stage of the economic war as it is being waged along the civilian front. As was to be expected, the recent over-all price freezing order of foodstuffs simply caused a chaotic condition to become stagnant. At the same time it did have the wholesome effect of halting speculative purchasing of foodstuffs. The 60-day stop order should, if properly utilized, result in a scientific and more equitable method of price control. As interested in particular in the cost price of the items we must serve in our school cafeterias, we should also be interested in the way such costs are determined. The recent order, by allowing a back door to higher prices, created an anomalous situation in some instances. Selling costs of goods, though of second quality, acquired by the wholesalers subsequent to the effective date of the order, carried a higher price than first-grade goods on hand at the date of freezing. Such irregularities in the wholesale market will, no doubt, be adjusted later. In this instance, as in all instances, the ceiling price becomes the floor and at times, no doubt, a usually lower-priced item reached the limit price allowed by the order.

One item that has always received attention beyond its just due is sugar. For years, sugar has been a "loss leader" in states allowing this merchandising practice. I predict that, when and if the rationing of sugar is put into effect, there will be vehement insistence on the part of wholesalers that the margin, allowed for handling, be greatly widened. At present, sugar is handled on a mark-up as low as 3 per cent while other staple items carry a regular mark up of 12 per cent and better.

(Concluded on page 68)

[1]Assistant Secretary, Kansas City, Mo.

Youth and the Future[1]

Edward A. Fitzpatrick, Ph.D.

I

The Report in General

Youth and the Future is a report made by the American Youth Commission whose purpose is to set forth a program "based on experience of the past, adjusted to the harsh realities of the present, and adequate to foreseeable needs of the future."

This Commission organized in 1935 has made a number of significant reports and now seemingly in this general report "rounds out the formulation of its organization in regard to youth." The previous and briefer reports were individual studies. Now the effort is made to place these individual studies in a "setting of a comprehensive treatment of the whole field and restated from a longer-term point of view."

The members of this Commission have unselfishly given up their time to what is undoubtedly one of the most critical problems which we shall face particularly in the future. It is not so evident as the chairman of the Commission says in his introduction "that the report is adjusted to the harsh realities of the present." It is fortunate, I think, that the present, except as a basis for discussion of the future, has not concerned the Commission very much. In fact one of the difficulties of the report is that it was written before Pearl Harbor and was about ready for publication when Pearl Harbor occurred and a number of verbal changes were made to meet the new situation. However, the actual impact of war makes more imperative than even under the "defense" period the consideration of the problems of youth as presented in the report.

The comprehensive nature of the report is indicated by the problems that are discussed. The continued employment of youth seems to be the major theme of the report and takes 102 pages of the 290 pages in the report. Then follows the discussion of "other basic problems": education, occupational adjustment, the use of leisure time, marriage and the home, health and fitness, delinquency and youthful crime, and citizenship. This discussion of the basic problems constituted the second part of the report. A third part of the report discusses the responsibility of the various agencies of the government, local, state, and federal governments; with a concluding chapter on responsibility for planning. This is really the conclusion of the report proper.

One of the members of the Commission, Dorothy Canfield Fisher, writes under her own name the final section of the report called "Meaning for Life." This section of the report constitutes the last 37 pages. It is in literary quality in striking contrast to the preceding part of the report which is in rather pedestrian prose that makes very slow reading. There is even a more striking contrast than this. It is the interpretation of what is regarded as *the* basic problem of the report — youthful employment, and on this main issue the concluding section is in striking contrast ideologically with the initial section. We shall give special consideration to this contrast.

The main contribution in the report is that it brings together for consideration the many aspects that must be included in a comprehensive treatment of youth in the future. There is a digest of proposals from many sources and analysis of problems. There is, however, little informational base for the report though presumptively the special reports which have preceded it contain at least some of the basic information. The report is largely in the area of opinion. Many of the recommendations of the Commission are presented as its assumptions, its beliefs, or its hopes. It has taken positions on many controversial subjects at least in a general form, with occasional hedging. The proposal of an all-inclusive school district giving education up through the junior college will as a practical matter raise a new controversy. The effort to change the single-room school districts into consolidated school districts has many lessons to consider in connection with such a proposal. The problem of moral and religious education was obviously always in the background of the authors' minds, but it is not brought into the foreground for treatment similar to other basic problems. From the standpoint of the schools, the proposal for continued unemployment has many challenging angles, and includes some devastating criticism of the schools. Let us begin with this central problem as the report itself does.

II

The Full Employment of Youth

From the standpoint of this report the basic problem regarding youth is the problem of unemployment. In fact the report calls the major objective of the American people the desire to manage our economic system so as to provide a sustained level of full employment. A high measure of social responsibility must be recognized, the report says, for all forms of unemployment. The Commission recommends that in the formulation of public policies at all levels explicit recognition be given to social responsibility for keeping young people constructively occupied up to 21 years. It believes, too, in adequate training for youth and adequate facilities for schooling up to 16 years. It makes some rather striking observations regarding the present school situations:

1. Many youth who now continue full time in school or college far beyond the point beneficial either to them or to society should be strongly advised to discontinue their full-time formal education when employment opportunities are available.

2. The present situation would be greatly improved if the principle was widely accepted that formal education should not be continued beyond the twelfth or thirteenth grade without several months of experience in some realistic form of gainful employment.

3. Students with good minds have become great misfits by being sponges.

4. Schools that now exist are a mighty poor substitute for realistic employment urgently needed as a maturing experience.

There is a very interesting discussion of the problem of employment in the adolescent period. It is a different point of view than is current and represents an attitude that school people have long resisted. If we go back to the effort of Charles McCarthy in Wisconsin in 1911 to establish the continuation schools, the opposition of school people to the problem and to the form of control there established is one indication that this is not a new problem, but is presented in a challenging new form. The main idea of this section is that "employment is necessary for most youth for the completion of the psychological process known as maturation."

To summarize, employment is necessary for most youth for the completion of the psychological process known as maturation. It is true that some girls may complete the process successfully by learning to take responsibility as homemakers, first in the parental home and later in homes of their own. Moreover, in the older form of family economic unit which still survives on the farm, both boys and girls may reach an effectively mature level of personality development without necessarily passing through any period of wage employment. But under modern conditions of urban life, it can be stated without qualification that all youth, young men and women alike, need and will usually profit from the experience of a job — a real job for which they receive wages and on which they take orders, do work whether it is pleasant or unpleasant, and adjust their own likes and dislikes to the requirements of the job, the boss, and the fellow workers.

The general analysis of unemployment as a factor in personal growth points out that there are two major aspects of employment — one is work and the other is wages. Work is important because of making possible this development of maturation, and because it provides the focus for a new organization of life habits. The authors of the report think that the least that can happen to an unemployed youth is the postponement of growth and failure to achieve a well-adjusted maturity of personality. The underlying theme of this section of the report is that these unemployed youth lose confidence in the existing social and economic arrangements. The trends that have been developing must be corrected if the problem is to be adequately dealt with: the American employer's reluctance to hire young workers, the elimination of child jobs, the migration of youth from the farms, and the child-labor regulations.

The National Youth administration and the

[1]American Youth Commission, *Youth and the Future*, American Council of Education, Washington, D. C., 1942, p. 290.

Civil Conservation Corps are praised for their effort to meet the problem of providing employment for youth. The beneficial work of both of these organizations and their effort to provide youth work programs are appraised and it is proposed that they should be combined under a single organization. The conflict between both the CCC and the NYA with local educational systems and the fear that they will take over control of the educational functions is discussed and the basis of a solution is included in the general principle underlying the relations of schools and youth work programs which are as follows:

1. Appropriate amounts of useful work are desirable elements in the experience of children and youth of all ages.
2. In the personal development of every person there comes a time when employment should replace school attendance as his or her major occupation. (Sixteen years.)
3. Young people should be able to enter private gainful employment without difficulty, after period when schooling is their major occupation.
4. Persons on public works programs should be paid suitable wage. (Low wage for beginning workers may be appropriate.)
5. The planning of employment should be administered so as to get best developmental effects for young workers.
6. Young people on public work programs have same need for a part-time educational program as those in private employment.
7. Any form of work or gainful employment may have educational effects.
8. The providing of gainful employment is not an educational function, though it is a public one.
9. School authorities should therefore avoid the administration of such programs either for youth or adults.
10. Primary responsibility for governmental legislation relating to employment should devolve upon the Federal Government.
11. Control and administration of public schools attended by children and attended during the period of compulsory school attendance is the function of states and communities and not the Federal Government, and by custom they provide educational service, too. The Federal Government is not prohibited by law or custom to provide additional educational service. The Federal Government has compulsory powers and education for training for national defense.
12. It is desirable to avoid competitive and duplicative public educational services. Federal grants are desirable and should be supplied.

There is probably space for one other point in this discussion of employment and that is the problem of making provision for youth employment in a system of private enterprise. The report, of course, strongly emphasizes our system of private enterprise though it admits that a system of private enterprise left to itself will not meet the situation. In fact the immense volume of social legislation now on our books is evidence of the need for action through government. In other words *laissez faire* is out.

There is at various times in the latter part of this first section of the report a discussion of our whole economic system, and the nature of that discussion is a revelation of the nature of the problems, the uncertainty, the lack of knowledge, the conflict of opinion, and the lack of solutions, that confront the American people in their effort to deal with youth in the future.

The discussion of the economic system itself is filled with such sentences as this: "but our understanding of public fluctuations is most inadequate at the very point where a lack of knowledge is most dangerous," in the identification of factors which will check a decline and institute a recovery. The conflict of different schools of thought on the economic system is noted. The statement of tendencies is frequent, the labor situation is thus described:

> Organized labor can be of tremendous assistance in the life of the nation when it becomes effectively able to represent substantially all of the wage workers in industry and commerce, provided it will rise to the level of statesmanship required by so great a part in the direction of American economic life. In the long run, union organization will benefit individual workers to the extent that the policies of organized labor are determined in the interest of all working people and of society as a whole, and are not merely an aggregate of the narrowly conceived objectives of a multitude of separatist local unions.

The provision of public works for youth is placed on this basis, that "whenever we have any considerable amount of involuntary unemployment the moral duty of the state to provide opportunities for employment on public projects is undeniable." And a general statement of the problem of the relation of government to the system of enterprise is given in this paragraph:

> If government is to discharge these great responsibilities successfully without destroying freedom, the decisions of the government must be based upon a correct understanding of the principles of a private enterprise system under modern conditions of technology, large-scale corporate activity, immense productive capacity, and many large individual incomes. But it is exactly in this area that our understanding is still very imperfect.

To work out this problem a proposed conference or committee is suggested because there is still great need for education and to provide the leadership for the discussion and the orientation of its problems. This Committee is to help make possible that industrial expansion and consumption which will make unemployment unnecessary. Apparently the basis of this report is to give to such Committee a preliminary map of the country it is to explore and cultivate.

III
Education

The second part of the book opens the discussion of the "other basic needs of youth," that is, other than continued employment. The introductory chapter of this section has a brief superficial discussion of adolescence and then indicates the various problems which the youth will face as discussed in this second section. The first of them is education. This chapter, in 21 pages, covers, in a general way, the whole educational problem but centers its main interest on the secondary schools and makes a special plea for the Negro youth or for education of minorities. There is very little actual information in the chapter, though there is a summary of the pamphlet, "What the High Schools Ought to Teach" which was published by the Commission and presumably gives the detailed information.

On the other hand, there are a number of extremely interesting and challenging points of view, many of which are not by any means generally accepted by the educators of the country. Some of these will be indicated in connection with the statement of the general educational attitude of the work. The Commission says that the only sensible educational policy for a program of total war is to maintain educational service unimpaired. The revelation of the illiteracy shown by the Selective Service physical examinations indicates not only an inadequacy for the army but an inadequacy for civilian life as well. Our most imperative duty in connection with education, and the authors of this report love the word "imperative," is to bring schools everywhere to the level where all children and youth regardless of race will receive a sound elementary school education. There is need also for health and physical education, for the expansion of vocational education including agriculture, and for a "revitalized program of education in the values and practices of democracy for youth both in and out of school." A complete reconstruction of educational standards is apparently implied, but the question must be left to the postwar period of reconstruction.

For the secondary schools in which the report is especially interested the Commission says that "we shall be compelled not only to face a financial problem which may be acute in all areas, but also to come to grips with the most basic problems of philosophy and objectives." There is no formal statement of what this statement means but I gather that the opinions stated in the chapter are an expression of what the Commission thinks about the problems of philosophy and objectives. The old cardinal principles of secondary education are revived, and the current ideal is restated that all American youth should receive a secondary education. This means, of course, that the secondary schools shall be accessible to all youth, but it points out that all youth are not to be sent into the secondary school mill merely to prepare for higher education. There is obviously need for a revision of the curriculum of the secondary school which has "moved only at a snail's pace in the direction of the requisite objectives." The changing composition of the high school population makes a fundamental reorganization of the secondary school curriculum a matter of immediate attention or one which can no longer be deferred. The Commission's previous report, "What the High Schools Ought to Teach," is thus summarized:

> In that report the initial emphasis was given to the importance of continued instruction in reading as an important and much neglected element in the high school curriculum. Equal emphasis was given to work as a factor in general education second in importance to none. Instruction in the social studies and instruction to prepare young people to meet major personal

problems were stressed as essential elements of the reorganized curriculum. The traditional course of study, particularly in the ninth grade, was attacked as inappropriate for many young people, as destructive of pupil interest, and as standing in the way of the curriculum reconstruction which in some manner must take place.

The question is raised whether the progressive removal from the curriculum over a period of 50 years of the basic cultural studies is not responsible in part for the present disorganization of western civilization. It is a point of view with which the Commission has much sympathy but it adds: "It does not seem likely that we shall solve this problem merely by clinging in the high schools to the tattered remnants of the ancient curriculum of the academies."

There are two things that the classical studies are supposed to do: (1) to bring young people to grips with the "deep, disconcerting issues of the nature of the universe, and of man's place in it and of his destiny," and (2) to provide "mental furniture for the members of the professional and leisure classes in a society which was regarded as justifiably stratified, self-perpetuated and relatively changeless." The even more important question of the moral quality of secondary education is dealt with inadequately, but here it is:

The high schools must face the task of teaching in the field of life values and social ethics, difficult though the task may be. Moreover, if we are to be successful in teaching the principles of a moral order to the youth who crowd the high schools, we must recover the essential values of the traditional curriculum, but we must do so by providing subject matter and teaching methods that come to grips with the really great issues in terms that can be widely understood and appreciated. It is not impossible to deal with the greatest ethical problems in simple terms and with a multitude of homely illustrations. When we are prevented from doing so, it is seldom because of questions of pedagogical technique. More often it is because we fail to muster the necessary courage and resolution.

The Commission makes a plea for a uniform public school system beginning with the provision for nursery schools and kindergartens and continuing without break through the fourteenth grade. It suggests single school districts and not overlapping school districts which will provide this education through the Junior College. The Commission believes that no Junior College operated as a part of a public school system "as a matter of principle, should charge tuition fees unless at the same time it makes sufficient provision for wage employment to enable any qualified student to earn his tuition." It then comes out strongly for an appropriate type of program such as the following: "half-time work in private employment, with half-time devoted to instruction in the schools would be an appropriate type of program for the twelfth, thirteenth, and fourteenth grades."

The problem of state educational administration will be ideally solved according to the Commission by an organization of a state board of education of well-qualified laymen vested with authority for supervision of the secondary and elementary schools of the state, with a chief state officer appointed by the board and responsible to it. The school officer should have an adequate staff. Standing in the way of the proposed reorganization are state constitutional provisions which are, according to the Commission, notoriously an impediment to the attainment of the program outlined, but the exercise of ingenuity, so the Commission thinks, will find ways to improve the situation within the present constitutional provisions.

The Negro situation is discussed and it is noted that the segregated schools for Negroes in some 17 states

are generally characterized by markedly shorter terms, grossly inferior housing and equipment, substantially lower salaries for teachers, and distinctly inequitable financing in all respects as compared with schools for white children in the same states. The fact that there are occasional local exceptions serves only to emphasize the general condition.

The Commission believes that federal funds must be provided for school support, but every possible care should be taken to guard against intrusion of federal control over the educational process in the schools. The Commission recognizes the dangers of bringing the Federal Government into the general field of school support.

A special plea is made at the end of the chapter for the public library as an institution of primary importance for adult education service. Federal grants for rural libraries are probably necessary to extend the public library system to the rural areas.

IV

Other Basic Problems

The readers of the SCHOOL BOARD JOURNAL will probably be best served in dealing with the other basic problems of youth in the future, if we attempt to summarize the main positions. This will be done. The other basic problems are occupational adjustment, use of leisure time, marriage and the home, health and fitness, delinquency and youth crime, and citizenship.

Occupational Adjustment. In a country where 1,750,000 young men or young women *usually* seek employment as beginning workers and perhaps 40 per cent of our students drop out of school without going beyond the second year of high school, there is perennial need for occupational adjustments, service of guidance, training, and placement. There is need for more full-time counselors, for greater occupational information, and for developing occupational tendencies of the present as well as new courses. The contribution which the schools can make "the Commission thinks" "is being demonstrated so impressively that it will never again be possible to relegate vocational education to a position of minor importance." The need for the training, guidance, and placement is indicated for urban youth, for rural youth, especially migrant rural youth, and for Negro youth.

The Use of Leisure Time. In the discussion of leisure time the contrast is made between active and passive use of leisure time. The tendency today is away from the active recreation of the frontier days to the passive enjoyments of our commercialized amusements. The report refers to the "selfish, self-indulgent, and passive" use of leisure. A special plea for Negro youth both urban and rural is made. The community recreational facilities should be extended. The "voluntary character building agencies (Y.M.C.A., Y.W.C.A., Boy and Girl Scouts) have developed a new capacity for self-criticism. They are of major importance, a solution of the financial problem of these agencies. A more extended use of public land in all areas should be worked out.

Home, Marriage, and the Family. Though a source of many of our difficulties today, home, marriage, and the family is a field "not easy to define and is difficult to organize in terms of solutions acceptable to any representative group." This area is rather diffuse and, in part, a highly emotional sector of human life. We are becoming aware of and must reckon with the social consequences of the practice of family limitation even though there is not likely to be agreement of the problem from the standpoint of morals and religion. The disadvantages of children in large families and the evasion of social responsibility for such children are described, as are the effects on the general population. The Commission assumes — a habit of the Commission — that it is desirable to prevent or at least retard any large decrease in the population of the United States. The Commission believes as a matter of social justice, families with large numbers of children should be assisted. Provision for school lunches, direct aid of goods and services and special distribution of food needed by children should be made. Public housing on a subsidized basis and a clothing-stamp plan are recommended. The physical effects of low income on large families is discussed, as is the new scientific knowledge of infancy available to "alert and intelligent parents." "But, says the report, a sound philosophy of relations between parents and adolescents is still only in process of formulation." Sex hygiene is a subject where there is need for specific instruction, "but one not easy to handle in an appropriate manner." The best solution according to the report is to provide good reading materials which are put in the hands of young people without ever being made the subject or recitation, examination, or discussion between teacher and pupils — an obvious evasion of the problem.

(To be concluded in June)

INDIVIDUAL VARIATION IN PUPILS

Adequate recognition of the fact of individual variation would practically revolutionize the administrative organization of the school, the organization of the curriculum, and many school practices. The grade organization of the school and the attendant practices in annual or semi-annual promotion or failure would be discarded. The curriculum would be organized in sequence and specialized segregated courses would disappear. The practice of prescribing specialized courses regardless of interest, need, or ability would be discontinued. Unfair practices in competitive marking based upon the idea of identical ability to achieve would be displaced. Diagnosis of needs, interests, abilities, and growth of each individual would absorb the time now given to measurement primarily for the purpose of determining the mark to be assigned or deciding whether the unit of credit should be allowed or denied. The function of the teacher as a guide and a helper would overshadow the teacher as a dictator. — *William L. Wrinkle.*

The School Board Won't Change

Ralph Adams Brown[1]

Most of the nation's present school-board members went to school when history was taught from a textbook, with, perhaps, a globe on the teacher's desk. They seem to have closed their eyes to the fact that the essentials of social studies instruction have changed.

Library facilities are essential to adequate social studies instruction. In fact many leaders in this field have for years advocated the creation of classroom laboratories: classrooms equipped with library materials and visual aids. They say that the best social studies instruction can only come when the teacher conducts his class in the midst of the physical essentials, such as magazines, books, pamphlets, maps, charts, and visual-aid facilities.

Henry Johnson, "dean" of social studies teachers, in his *Teaching of History*, mentions the Madison Conference of 1892 which declared that "Recitations alone cannot possibly make up proper teaching of history. It is absolutely necessary, from the earliest to the last grades, that there should be parallel reading of some kind. The main necessity is that teachers should have it firmly fixed in their minds that it is as impossible to teach history without reference books, as it is to teach chemistry without glass and rubber tubing." That was written 50 years ago, yet Henry Johnson wrote in 1940 that "There is still, in many cases, a lack of the necessary library."

Collateral Reading Necessary

Professor Johnson suggests many reasons why increased library and classroom facilities are essential. He states that collateral reading is necessary because most textbooks require elaboration, it is necessary to make the textbook itself intelligible, to make the past real, for additional information, to make history interesting or inspiring, to illustrate the historical method of study and to give acquaintance with historical literature. Social studies instruction has come to play an increasingly important part in the educational program. Many writers in the field testify that the aims of this instruction can only be realized where library facilities are adequate, or where classroom equipment and study aids make it a virtual laboratory.

Only an infinitesimal part of the social studies teachers have the opportunity of giving instruction in a classroom laboratory. Worse yet, most social studies teachers are forced, by the limited appropriations of school boards *who won't change*, to teach in schools where the library resources and such classroom essentials as maps and charts are way below par. Library appropriations, seldom as large as the needs of just the social studies department warrant, are divided among all of the departments in the school. And when either taxes or unemployment rise and taxpayers urge retrenchment, it is the library appropriation which is the first victim.

Compare the predicament of the social studies teacher, if you will, with the position of the teacher of the physical sciences. How many school boards have done away with either the physics or the chemistry laboratory? If money is always available for one, doesn't it seem reasonable to suggest that it could be found for the other?

This is not meant as a reflection on laboratory instruction in the physical sciences. That need is accepted. Yet it is indisputable that the social sciences should be taught in rooms equipped with books, magazines, movable tables, maps, opaque projectors, and other teaching aids. Nor should school boards overlook the fact that a larger proportion of their students are registered in social science courses than in the physical sciences.

This is not the time for retrenchment in essential instruction. Americans have now been told that we must prepare to win *both* the war and the peace. Even that is not enough. We must prepare to *keep the peace*. Training for the realization of human dignity and for democratic citizenship must be improved and extended. School-board members must recognize that only the best social studies instruction is good enough to meet the challenge of the present year of war and the needs of the peace to come.

[1]Instructor, High School, Haddon Heights, N. J.

The School Board Wants to be Shown!

R. Glenn Davison[1]

Conscientious members of a school board expect to receive proportionate value for the money they spend. When they adopt changes in school policy they do so because they are convinced that the change will benefit their school systems. Arguments of educational theorists mean nothing to them unless they are convinced that the theory can be successfully applied to their situation.

Even in periods of prosperity school boards must contend with citizens who cry for tax reduction; in times like these the cry becomes an angry wave of sound, demanding smaller appropriations for so-called "nonessentials." Few professional educators appreciate the thanklessness of a school-board member's position. The taxpayer tries to pull him one way, the teacher attempts to push him the other. It is only natural, therefore, that board members come to oppose sudden changes, and to think carefully before making decisions.

Theorists in the social studies field have long complained that school-board members are unsympathetic to their pleas for larger equipment appropriations. They argue that we are blind to the new trends in social studies teaching and to the necessity of the improved instruction which they claim can only be achieved in the classroom laboratory. We are not blind, nor do we refuse to change. We do insist that the worth of these changes be demonstrated, in actual practice, before we invest the community's money in them.

Teachers may parry with the assertion that they cannot demonstrate the worth, in practice, of added library and laboratory facilities until they are made available for their use. As practical men and women we board members reply that most teachers fail to demonstrate any real desire for improved facilities. Social studies magazines have long emphasized the variety of inexpensive aids which the ingenius teacher can utilize. Yet most of our teachers fail to adopt these suggestions.

Many Helps Unused

Not only do most of our social studies teachers fail to take advantage of a multitude of ways for improving their facilities, but they fail to make complete use of those means of improved instruction which are offered to them. We are all familiar with the teacher who begs for expensive equipment, but after obtaining it soon loses interest and stops using it. Too many of us find books collecting dust on the shelves of our school libraries, books which were once described to us as indispensable."

Mr. Brown is wrong! School boards *will change*. Our critics should remember that school-board members are practical men and women. They are not impressed with a theoretical argument of the need, or desirability, for larger equipment appropriations to social studies departments. They must justify all expenditures to an ever critical public. Yet school boards *are* anxious to raise the level of their instruction. They *are* inclined to improve the equipment of *any* department, whenever possible. They ask only to be shown that appropriations will be used for real improvement in instruction. The burden of proof lies with the social studies teacher. Demonstrate your sincerity and determination and we will answer with the appropriations for which you ask.

[1]Former President of the Board of Education, Jamesburg, N. J.

THE N.E.A. WILL MEET IN DENVER

The National Education Association will hold its eightieth annual meeting in Denver, Colo., June 27 to July 2. The headquarters for the meeting will be in the Denver City Auditorium.

The local committee on arrangements has prepared a rich and interesting outline of entertainment, to include trips to the city's 35 parks, bus trips to mountain scenes and summer resorts, and art tours to the Mesa Verde and Indian country of New Mexico.

As the New Illinois Tenure Law Begins to Operate

Herbert B. Mulford, Esq.

Illinois has a new teacher tenure law, and it is beginning to operate. For two major reasons it is attracting the attention of teachers, administrators, and school boards, not only in Illinois, but over all the country.

First, the new law is significant because it is the first accomplishment along this line and takes the place of a bill deliberately killed several years ago because the radical teacher-labor group which prepared it had not given due consideration to the interests of childhood.

Second, it is important because the law is largely the creature of the associated school boards of the state, who through their leaders, immediately upon killing a bill they did not think was good or fair, lobbied successfully for the passage of the present law, which has been hailed by numerous students of school administration as being of exceptional character.

The law also is of interest because in neighboring states there have been examples of bad operation of tenure laws which not only have brought frequent shifts of teachers by boards during probation periods, but which have been burdensome enough to bring about their own repeal.

The new Illinois law is unlike many other types in that it automatically produces a "continuing contractual relationship" which wipes out the old three-year contract limitation and provides the teacher with a continuing contract on default of a 60-day dismissal notice before the termination of the school year this spring. There is a probationary period during which the school board can turn around and the teacher become adjusted. There is also right of appeal from board decisions for adjudication of statements of facts. But primarily the board has the power to make its own decisions as to teacher fitness and the teacher has the right of a hearing and a statement of causes for dismissal.

Probably among professional circles there is some skepticism over the practicability of the protection of the teacher from school board arbitrary or political dismissal. Probably the carefully critical board leaders hold to the view that, even if there should be occasional abuses of decent board-teacher relationship, in the last analysis the school board is the responsible school government, and its operations must be sufficiently protected in the law not to permit incompetent or malingering teachers to be "frozen" in jobs for which experience and time may show them not to be fitted. Teacher elements to a considerable degree have argued for somewhat rigid civil service, holding that the problem of such regulations should be as simple as those for police, firemen, bookkeepers, and other clerks. And it is on sharply divergent points of view in this connection that perhaps the chief interest should center. At this writing the principal activities are around providing notices for teachers, new types of contracts, and sifting out of the borderline teacher cases where both boards and administrators are not quite sure of capacity. But to this commentator the greatest significance of the law's possibilities, aside from tenure and retirement, is the sudden activity of boards and teachers alike to try to understand more about school-board operations and the dubious problem of teacher qualifications.

In this respect two matters stand out prominently:

1. School boards proverbially do not have decently formulated bylaws, rules and regulations, written policies or other bases easily understandable by which the board itself can judge its own acts and reasons therefore, or by which teachers can get any sort of picture either of board operations or standards by which the board may judge them or they judge themselves.

2. The better informed boards realize that continuing contracts, if they are not to involve subsequent disputes, must be based on regulations clear to both sides of the contract. Therefore, for the first time in history there is a considerable stir among school boards over the state to establish some sort of rules and regulations, and to lay down reasonable and tangible statements regarding teacher abilities which, to say the least, should put teachers on notice as to what is expected from them.

Because numerous boards have been considerably exercised to know the best thing to do in the circumstances, types of contracts have been broadly circulated over the state through the auspices of the Illinois Association of School Boards, in the hope that they might serve as the basis of formal procedure to supplant the shabby custom of a mere note or letter advising the teacher of renewal of contract. This contract doubtless in thousands of cases has brought teachers up to consideration of some of the administrative problems of superintendents and board members, for it is notorious that, for whatever reason, few boards and teachers meet in concert over school problems.

Since the teacher is the center of school activities, steps taken to understand teacher abilities in work are paramount to any obligation either of the administrator or school board. Hence there should attach special and significant interest to one set of "standards for guidance of teachers" which accompanied a sample contract distributed by the associated school boards to some 9000 of their fellow members and which reads as follows:

1. Since children are affected by the personality of the teacher as well as by what he teaches, the teacher's personality must be one which is wholesome for children. It is expected, therefore, that the personality of the teacher will at all times be characterized by poise and equanimity, emotional stability, the ability to remain relaxed with children, patience, good humor, and other traits which are essential to a good teacher-pupil relationship.

2. Character development is a primary purpose of education. Teachers are required, therefore, to maintain in their personal and social relationships ethical and moral standards that are at all times socially acceptable in the school district.

3. Teaching is a process that requires the continuous achievement of new knowledge and the continuous improvement in skill. It is required, therefore, that teachers engage in personal and professional activities that will insure their continuous growth. While the board has adopted certain regulations requiring continued professional study, continuous growth cannot be measured solely by academic credits.

4. Education in a democracy is essentially a cooperative enterprise, which involves group planning and evaluating. Teachers are required, therefore, to participate in school and community activities designed to achieve the highest possible level of professional service.

5. Effective operation of an educational program demands the complete cooperation of all agents in matters of routine management. Teachers are required, therefore, to meet time schedules promptly, to file reports promptly upon request, and to otherwise observe all routine regulations and requests.

As to the several significant phases of the law itself, the continuing contractual rights of teachers terminate at the age of 65; the right of appeal is to a board of three to be selected, one by the school-board association, one by the teachers' association, and one by the county judge; the decision of the school board for dismissal may be reversed on two grounds: improper reason for dismissal, and no substantial evidence to back up the action of the board.

Although numerous types of contracts were prepared in different situations, by county superintendents, by groups of cooperating superintendents, and by local boards and their administrators, the action of the Illinois Association of School Boards in this relationship is significant for the principal reason that the contract form and the gearing into it of the guidance principles stated above are essentially for psychological reasons. Doubtless there has been ignorance in the board-teacher relationship and it has been marked by much abuse. But, heretofore, there has been inadequate cooperation between lay and professional forces, both to achieve understanding and to disarm criticisms of both sides by fortifying understanding with a little formal material which would continue the understanding year after year once it might be achieved. It is hoping for too much to think that the millennium has come in the long history of teacher relationships with the public and its school-board government. But if the psychology involved in the current movement in Illinois bears some fruit, we may have better teaching, because teachers not only may have greater security but because they, to a greater degree especially in these wartimes, may have a more tangible grasp upon what it takes in their own development to satisfy an alert school board and a progressive community.

NATIONAL DEFENSE AND LOCAL GOVERNMENT

"Economy in state and local governments, in my opinion, is the greatest contribution to national defense that any unit of government can furnish, because we must make it possible for the people to pay the tremendous federal taxes that will shortly descend on their heads."

A School-Board Member Writes: The School Must Go On

Boards of education have a supreme duty to conduct the schools during the war-time with utmost efficiency and attention to the adequate maintenance of all major services. In this connection, Dr. Lyman J. Powell, a member of the board of education at Mountain Lakes, N. J., recently wrote:

Schools must be kept up with the same care and steadiness in war as in peace. Defects must be as promptly corrected and repairs as quickly made, and all that can be done must be done to insure that children yet unborn can one day say with truth, "No war, or battle's sound was heard the world around."

Because this inexorable need was not in men's minds when the first World War broke loose in 1914, I found in 1917 in studying overseas the effect of that war on England and French educational institutions, a condition as unbelievable as it seems at the time irreparable, and to this day deplorable in schools of every sort. For that matter the price schools have to pay when nations go to war is as regrettable as the colossal price exacted of nations in their economic and industrial life; and schools keep on paying and paying long after the gory details of war have all but faded out of memory as well as sight.

Is there anything we can do to save our schools and the children in them from the dire disasters which this new war seems certain to bring on them? The subject may be approached from either the pessimistic or the optimistic point of view.

The pessimistic viewpoint may be presented —and sometimes is—by that earlier-day teacher entirely too sure that from those postwar twenties there is nothing left worth keeping, that education has abruptly become of no consequence, that democracy itself if not turned into the last resort of the irresponsible is at least more honored in the breach than the observance.

The optimist is not so easily upset. He knows how to keep the faith. He continues to challenge pessimism on every count, at every turn. Without claiming that at any time in peace or war everything is as it ought to be, he may even develop a tendency to exaggerate the past and to underestimate the present. The truth, however, lies somewhere between wholesale praise and wholesale condemnation.

. . .

My plea for an optimistic attitude toward schools today rests on no petty and annoying details but on a larger and sounder basis with its inevitable implications that civilization itself cannot last out unless education is kept up, steadily and surely, to the highest point possible of the trained and seasoned intelligence of both teachers and school boards.

This is a truth self evident. In the school world all of us who have the highest interests of children at heart subscribe to the equally high ideal that "The School Goes On."

Yes, the school must go on. Wars may drive up costs of operating schools. But whether costs go up or come down, school boards can still take comfort in the thought that schools, which are the surest safeguard of civilization, are still costing the American people less than their pleasures and luxuries, far less than this totally cosmic war on which we have barely begun to spend the billions very hardly earned of American democracy.

What About Cooperative Work Experience Programs? M. W. Tate[1]

At the present time a great deal of emphasis is being placed upon the desirability of including practical vocational training and work experience in the high school curriculum. The reason is not far to seek. Prior to industrialization, any youth could supplement his secondary education with the work experience of learning a trade or of a part-time job during out-of-school hours. Upon graduation, regardless of the amount or quality of his training, he might find a job. If the job proved unsatisfactory, or if he found himself unsuited to it, he could obtain other employment for which he was better equipped. With the coming of industrialization, the resulting oversupply of workers, and the trend in labor union policy toward the elimination of the apprentice system, however, this source of supplementary and somewhat casual training dried up.

[1]Superintendent of Schools, Gooding, Idaho.

Some Recent Influences

Several other conditions combined to emphasize work experience as a desirable feature of the curriculum. Part of the unemployment situation in the early thirties was attributed to lack of practical and prepared workers. Some of the youth organizations, first set up as emergency measures to provide useful labor for youth or to enable them to remain in school, became more and more conscious of the vocational training possibilities inherent in their programs, and more and more began to emphasize the educational value of work experience. Several of the reports of the American Youth Commission emphasized the necessity for more vocational training. One report, in particular, stressed work experience as a necessary factor in general education. Added to these influences was the growing conviction of many educational leaders that the high school curriculum had failed dismally to keep pace with the times.

For at least two reasons the cooperative work experience program has been the most common answer to the need for more emphasis upon practical vocational training: the widespread acceptance of the notion that a great deal of education, particularly in the social studies and vocational fields, should be based upon the study of the community and the fact that few high schools have the facilities necessary to the operation of work experience programs in their own confines.

The type of cooperative program of most interest to the average high school is the part-time plan in which the youth is given the opportunity of supplementing his regular high school work with the vocational experiences of a part-time job.

There are several ways of fitting part-time programs into the curriculum. With the alternate period plan, a regular full-time job is held by two or more pupils who alternate by hours, days, or longer periods between school and work. A more common type, particularly in the smaller school is the "apprentice" plan in which the pupil spends part of each school day in working for a businessman, a skilled mechanic, or some other community worker who is engaged in a vocation of interest to the student. The apprentice period usually is not shorter than six weeks or longer than a year.

The apprentice plan is popular in the smaller school and is spreading rapidly. It has many commendable features. Being based almost entirely upon the resources of the community, it provides a natural induction into community life and citizenship. It is superior to class observation and study of the community as a concrete method of exploring vocations. Since it is organized and sponsored primarily by the school it may be more easily co-ordinated with schoolwork than other co-operative program. It offers the opportunity for young workers to get acquainted with the people who do the hiring, and it gives these people the opportunity of gauging the respective merits of future workers. It thus serves an important and desirable placement function.

Dangers Involved

But the plan also has several inherent weaknesses. Since it is growing rapidly perhaps it will be wise to examine some of these in detail. The first prerequisite of any particular vocational training scheme should be that it provides realistic training. In the case of the apprentice plan this implies that the student must give satisfaction in the work, and that he receive wages commensurate with the worth of the services he performs. The practice of work without wages has been defended on the grounds that academic credit and the value of the training received are sufficient pay. There is a great deal of truth in this—the unfortunate consideration is that training without wages is likely to hurt the quality of the training itself. It may become sort of a "make-believe" affair on the part of both

trainer and trainee; it may lose its lifeblood. Another danger of work without wages lies in the possibility of exploitation of the student, and resulting unemployment for the adult worker who formerly held the job. This danger becomes more marked during each successive year of the plan's operation. Realistic training also implies that the experience should be representative of the full range of work performed by the full-time employee in that field. If the field is auto machanics, for example, the training should include tearing down and repairing motors as well as tightening nuts and putting away tools; if retail selling, it should include actual selling to the public and handling money as well as learning stocks and arranging shelves. All of this implies, in short, that the trainer is able and willing to take time to teach the special skills of the occupation.

Ironically enough, the apprentice plan is likely to be least effective in the school most needing it. The proper interrelation of work and school experience depends upon the extent to which skills and information acquired in school are applicable to the work, and upon the extent to which deficiencies indicated by the work experience may be made up at school. It is obvious that the meager high school program most in need of supplement is least able and likely to provide training in the arithmetical skills involved in retail selling, metal lathe operation, use of current journalistic English, instruction in the theory of internal combustion motors, etc. Lacking interrelation, the apprentice plan as well as other cooperative programs may decrease interest and purpose in what the school has to offer. The question "what good will this do me" may become increasingly hard to answer to the student's satisfaction.

An Efficient Guidance Program Needed

The successful operation of the apprentice plan demands not only a somewhat specialized curriculum, but also a wise and efficient guidance program. Few communities afford facilities for training more than perhaps 30 per cent of the high school students. It seems reasonable that the majority of the apprentices will be selected from the lower and middle third of the group. It is these pupils who most likely will become workers in the community; it is these pupils who most need concrete training, and concrete illustrations and applications of vocational concepts. There is the danger, however, that this group will be discriminated against in favor of the students who are more easily trained, who are more eager to take advantage of the training, who make better impressions in the community, and who, it may be believed, can better afford to miss full-time school. Another and perhaps more serious consequence in this respect is that emphasis upon immediate training and present jobs may result in a "lowered ceiling" for the capable student.

Of fundamental bearing upon the apprentice plan, and upon any other cooperative program in the general high school which attempts to do more than provide supplementary training for youth who *must* work, is the question as to whether the training might not be given more appropriately to most students at a later time. Learning about the workaday world is a function, to some extent, of maturation. There are a great many influences in the social structures of today which tend to prolong the maturation period. The technological advances certain to result from the present war undoubtedly will lengthen the technical training period and raise the average age of those entering skilled occupations. In view of these considerations it may be that formal work experience for many students may be postponed safely until their high school training has been completed.

Clearly the apprentice plan does not constitute an unmixed blessing. Under competent management and favorable conditions — supported by state law and binding apprentice contracts — it may provide valuable work experience and some vocational training. In some cases it may revitalize the curriculum and guidance programs. But under less than this, it not only may produce negligible or harmful outcomes, but it may interfere with other proper functions of the high school. It may blind teachers, public, and students to the fact that mastery of broad, basic skills and knowledge is the most important job of the capable high school student.

New Britain Schools Train for Production

Carlyle C. Ring[1]

The defense of any country demands a highly concentrated effort; at the same time it necessitates a long-range program. Both of these requirements New Britain schools are endeavoring to meet, in every field of activity and with special emphasis in the trade, industrial arts, and homemaking fields.

Because it so effectively represents the close co-ordination of school and national interests, the New Britain Trade School program is at present the center of attention. The result of pioneering in this field over a quarter of a century ago, this school and its plant are designed to meet modern industrial standards in every way. It is well adapted to meet the present emergency and is in use practically 24 hours a day.

Cooperating with the State Employment Board, the trade school offers a 200-hour job-training course, providing in five nights between 10:30 p.m. and 6:45 a.m., a 40-hour work week to anyone who can pass the State Office test. In turn, that office refers back to the school for references on its students. Training in this course is available in three fields: general machine-shop practice, automatic screw machine operation, and foundry work.

Additional, for those now employed but desiring supplemental instruction in either the general or automatic screw machine operation, extension courses are offered between 7 o'clock and 10 in the evening. Likewise, unemployed men sent by the state office or proved by test to be capable of profiting by the training may also take courses in welding, electricity, plumbing, and steamfitting. Further, two classes are now in operation in blueprint reading and trade mathematics.

In the long-range regular daytime program there are three departments for girls and twelve for boys, available under two plans.

[1]Superintendent of Schools, New Britain, Conn.

All boys in the New Britain junior and senior high schools learn to use tools.

Practical mechanics direct the vocational shop courses which include every major trade in the community.

Printing is a valued activity in all industrial arts courses at New Britain.

Under the first plan, any boy or girl over 16 years of age who has completed the eighth grade may enroll. Under the second, or high school trade cooperative plan a student may enroll after completing the tenth grade, substituting the trade school course for regular academic work. He is thus entitled to both high school and trade school diplomas when his course is completed. The girls' courses, ranging in length from about two to two-and-one-half years, are beauty culture, dressmaking, and food trades. The boys' courses, usually about three years, include automotive repair, general machine-shop practice and automatic screw machine operation, plumbing, carpentry, masonry, electricity, printing, tool- and diemaking, metal patternmaking, mechanical and architectural drafting. Graduates of these courses are rarely unemployed for any length of time.

In the senior high school, girls in the homemaking courses are studying nutrition, child care, and housing. In an industrial city like New Britain where the population is a heterogenous one, the problem of maintaining high living standards is a real one. Much of the responsibility for its solution lies in the hands of youth. The need for well-balanced meals, for a comfortable atmosphere, for relaxation, for well-organized households becomes acute. The learning experience in the child-study courses becomes a practical fact outside of school. Just now the girls are engaged in preparing a series of inexpensive well-rounded menus culled from the various nationality groups with a view to making them available to all. In the junior schools the homemaking work consists in the planning, purchase, preparation, and service of food; sewing groups are engaged in projects for the Red Cross.

Likewise, for about 600 boys in the senior high school a major course is offered in industrial arts. This means about four hours of shopwork a week. Through the first two years the boys are routed through a series of experiences — machine and bench metalwork, printing, electricity (and some auto mechanics), and woodworking. After two years of exploration in these fields, the boys each elect one shop activity for concentrated study during the twelfth year. In all cases the problems are practical, although no commercial work is engaged in and no outside jobs are undertaken, as is the case in the trade school. The demand for this type of training has been so great that three large shop rooms are now devoted to it instead of the one in use a year ago. Similarly, in the junior school a wide orientation course is given in grades seven and eight, with considerable emphasis on home mechanics. The boys spend each year about ten weeks in each of four different kinds of shopwork. In the last year, the ninth, they are allowed to elect whichever branch of the work has been most attractive to them and devote the entire shop time thereto.

Until December 12, 1941, the National Youth Administration sponsored three projects cooperatively with the New Britain School Department. These activities, for youth from 16 to 25 years of age, have become relatively unnecessary as more remunerative jobs have opened up outside. During the transition period, however, work was provided for unemployed young people. Some of the work was regular clerical work; some of it was sewing, and some sign painting. The girls of one group fitted out a home in a local housing project to show the public the possibilities of making an attractive if inexpensive home. Former members of these projects are now employed profitably elsewhere.

All over New Britain effort is being made to make the service of the schools of practical value to the pupils, to the community, and to the nation. The cooperative experiment is yielding returns.

NEW WAGE SCHEDULE FOR SCHOOL-BUILDING EMPLOYEES

The board of education at Canton, Ohio, has recently approved a new schedule of wages for janitors, custodians, and engineers, which sets up a definite schedule of wages for these employees based on classification and building. It also provides for adjustment of wages to correspond with the schedule.

The Schedule

2 custodians, classification A; minimum, $2,040; maximum, $2,220.

2 custodians, classification B; minimum, $1,860; maximum, $2,040.

2 engineers, class A; minimum, $1,860; maximum, $2,040.

31 janitor-firemen, class A; minimum, $1,680; maximum, $1,860.

3 janitor-firemen, class B; minimum, $1,560; maximum, $1,740.

6 janitor-firemen, class C; minimum, $1,500; maximum, $1,680.

22 janitors, class A; minimum, $1,620; maximum, $1,800.

8 janitors, class B; minimum, $1,500; maximum, $1,680.

7 janitor-helpers, class C; minimum, $1,320, maximum, $1,500.

1 utility fireman, minimum, $1,680; maximum, $1,860.

1 stadium-custodian, minimum, $1,320; maximum, $1,500.

1 assistant-stadium, minimum, $1,200; maximum, $1,380.

1 truck driver, minimum, $1,320; maximum, $1,500.

All employees will advance from the minimum to the maximum wage for any classification in three years' time, with an annual increment of $60. If an employee is transferred to a higher classification, his wage will be advanced by $60 a year, or by an amount sufficient to bring his salary to the minimum of the new classification whichever is greater. All transfers to classifications having higher salary allowances will be made upon the recommendation of the superintendent of buildings, based upon both qualifications and experience.

If an employee is less than $120 below the maximum for his classification, the increase is to be sufficient to bring the salary up to the maximum for the classification and will be less than $120 per year. Five of the present 91 operating employees will still be below the minimum established for their classification. An additional adjustment will be necessary in these cases to bring their rate of pay up to the established minimum for their classification.

Protecting School Children Against Shattered Glass

School authorities, in many cities where there is danger of air raids, have been concerned with the protection of school children from flying glass. In Detroit, the Department of Buildings and Grounds, under the direction of Mr. Ernest O. Fox, has made a considerable study of the most practical way of providing protection of occupants of designated air-raid shelters against flying glass.

There are three ways of accomplishing this end:

a) To remove the glass from the windows or doors and substitute some other material.

b) To use some material directly on the glass which will hold the pieces together when the glass is shattered.

c) To provide, by means of a screen, protection from flying particles of shattered glass.

The Detroit study has indicated that many materials may be used as glass substitutes: beaverboard, plywood, corrugated board, cardboard, and other similar materials. All of these, however, are opaque and are useless where light must be admitted. When simply tacked in the window frame, these materials totally eliminate the danger of flying glass. Where light is necessary, only one material has been found suitable in the Detroit experiments. It consists of No. 16 galvanized wire cloth (fly screen), which has been immersed in a bath of cellulose acetate that completely fills the interstices between the individual wires. This material, when used as a substitute for glass, admits light freely, retains the heat in the rooms nearly as well as glass, and is flexible enough to absorb considerable shock.

To arrive at definite conclusions regarding protection under methods *b* and *c* above, the Detroit authorities carried on a series of tests with (1) plain glass; (2) glass coated on one side with cellulose acetate film; (3) glass coated on one side with asphalt impregnated, fibrous paper; (4) glass glued on both sides with asphalt paper; (5) glass coated on both sides with cellulose acetate film; (6) glass protected with 1-inch strips of asphalt paper, forming squares of approximately 5 inches; (7) glass varnished on one side; (8) glass coated on one side with cheesecloth, attached by means of varnish.

The Detroit Department of Buildings found that various shatterproofing materials applied directly to the glass do have considerable value. Where the transmission of light is necessary, and considering the benefits obtained and the expense involved, it would seem that glass treated as in experiments No. 8 (cheesecloth) and No. 2 (cellulose acetate film) would be very beneficial from the protection standpoint.

As a further means of testing the protection given by screens, various materials were suspended inside of the glass to be broken and at various distances from it.

1. An ordinary window curtain hung 6 in. from the glass and fastened only at the top was punctured and torn somewhat but most of the glass fragments dropped within 2 ft. of the original glass pane.

2. Heavy shadowproof window shade, placed 3 in. from the glass, was punctured but no pieces of glass went through the shade.

3. No. 16 galvanized fly screen, placed 1 in. from the glass, was not bent or dented, and only very small particles went through the mesh.

4. Twelve-ounce canvas was not punctured by the shattered glass.

5. Velour stage curtain, fastened at the top only and hung 3 in. from the glass, was not actually punctured by the shattered glass.

6. Beaverboard, hung as in No. 5, was not punctured.

7. Venetian blinds 2 in. from the glass, when three quarters closed, allowed the shattered glass to go through, and drop from 8 to 10 ft. inside. With the louvers slanting down and about three quarters closed, the shattered glass was deflected to the floor, no pieces being more than 2 ft. from the pane.

The Detroit school authorities have concluded that No. 16 fly screen, tacked inside window frames, provide the best protection commensurate with the expense involved.

The Department concludes that in none of the experiments have we been able to approach the actual conditions existing after a bomb explosion. It is felt, however, that at least comparable information has been obtained from which conclusions may be drawn according to one's own best judgment.

Air-Raid Preparations in a Mid-Continent School System

A. J. Foy Cross[1]

The centrally located cities of the United States are but little less vulnerable to attack than coastal cities. In fact, it is easily conceivable now that such inland areas may be the very first points of enemy attack.

One month after the surprise attack on Pearl Harbor, the Omaha public schools were conducting air-raid drills. Immediately after the Hawaiian disaster a local committee was appointed to draw up air-raid drill regulations and to try out air-raid drill procedures. Within a short time, during which there was much investigation and experimentation, the committee reported back a plan and procedure which was immediately put into effect in all schools.

On January fifth, the day following the schools' Christmas holidays, the newspapers and radio stations carried the announcement that school air-raid drills would be held and solicited parent and general community cooperation.

At the same time, the principals of all schools in the city were called together to receive detailed instructions from the air-raid drill committee. With these instructions they were asked to assume two major responsibilities. First, they were charged with presenting to all pupils and all teachers and other employees in their buildings, the reasons for school air-raid drills. Next, they were charged with the responsibility of seeing that all pupils and all school employees learned as immediately as possible: (*a*) to recognize the air-raid signal, and (*b*) to know exactly where to go when the air-raid alarm sounds and to go there at the first sound of the alarm.

Back in their buildings the principals set into operation committees of teachers, pupils, custodians, and parents which were to adapt and carry out the detailed instructions of the central committee. Definite refuge space was assigned and marked off in such a manner that any pupil, in any room or part of any school or of any school grounds during any part of the day would know where he was to go when the air-raid alarm is sounded. This same building committee made certain that each room of every school building has posted in a conspicuous place, a large placard sign which told in a few words just where the refuge is for that room. During the week of January 5–9, 1942, pupils in each room and in each class were conducted by the teacher to inspect and become acquainted with the location of the air-raid refuge space assigned to that room and with the route to be followed in reaching the refuge.

It was planned to curtail night activities almost completely. However, in the case of any essential night assemblies, committees of teachers have been instructed to "take a few minutes at the opening of the assembly period to describe air-raid-refuge procedure for persons in the assembly rooms."

In each building a schedule has been established that assures the presence of an adult, a teacher or other building worker in complete charge of each large refuge area in a building during all time of day and on any evening when the school building is in use.

Uniform Signals and Procedures

Uniform building air-raid signals are established and all pupils, teachers, and other workers in the building have been fully trained to recognize the air-raid alarm and *to go immediately* in an orderly manner to their assigned places in the refuge or on air-raid drill duty. Even visitors in the building are now required to go to the refuge. They must go at once to the space assigned to the room in which they happen to find themselves at the time an alarm is sounded.

It was soon discovered that there are two major functions in connection with air-raid drills, in which students can assist: (1) fire prevention and fighting, and (2) traffic control. These two functions have been made separate and distinct and each is assigned to a group of students thoroughly trained in their duties.

(Concluded on page 66)

[1]Director of Instruction, Omaha, Neb.

THE AMERICAN
School Board Journal
A Monthly Periodical of School Administration
Edited by
Wm. Geo. Bruce and Wm. C. Bruce

Priorities in School Administration

IN THE gigantic struggle to weld the nation into a unit sufficiently powerful to resist our foreign foes and to protect the sacred heritage of our democracy, there has been thus far a due regard for the educational interests. *The schools must go on!* The youth of the land must be trained for manhood and womanhood, for that citizenship which makes for our way of life, and which constitutes the bulwark of our defense.

Thus, the priorities of personnel and materials granted have borne in mind the necessities which are involved in conducting the school and which are needed to provide the essentials of instruction. Here it must be remembered that a modern school — its manner of operation and its plant and equipment — includes many things and many innovations unknown to the school and the school plant of a half century ago. While many items and services are essential, it remains, too, that some can and are dispensed with.

Capital investment, namely new structures, is practically suspended for the duration of the war. Many of the permanent materials which go into new school buildings are required elsewhere in serving the cause of the nation. Needed rehabilitation and repairs must and can be made, and ample noncritical materials are available for these purposes.

The priorities clause has affected in some degree the supply and equipment needs of the schools. And here it is hoped that those in governmental authority will enter into the merits of the demands made. The National Manufacturers' Association at their recent convention, adopted a resolution to the effect that "the administration and conduct of public education is an essential public service; that its reasonable financial support constitutes a necessary claim upon our American society to which other public services of lesser value should be subordinated."

In viewing the situation as a whole, it may be said that the school administrators everywhere have done much to secure that unity of purpose and cooperation of all factors to enable the carrying out of the plans and policies of the government in the great task now in hand. The job of education for the war industries is without parallel and is growing in quality and amount. The speed-up of the colleges is a complete answer to the ancient slander that educators are stodgy and self-centered. The readjustment of high school and elementary curriculums promises a wholly new and better preparation of children and youth to carry on the burdens of war and peace.

It remains now for the school boards to see that the schools' priorities are fully safeguarded for the coming school year, that ample funds for all school services are provided, that relations with the teaching and operating staffs are maintained on a thoroughly democratic basis, and that all community relations are raised to a plane of effective mutual respect and cooperation.

A School Board One Hundred Years Old

THE board of education of New York City had its beginning on April 11, 1842, and thus in point of age has reached the century mark. It was on that date that the state legislature passed "an act to extend to the city and county of New York the provisions of the general act in relation to common schools." At a special election on June 6, 1842, two commissioners were elected for each ward. Thirty-four men were on that original board. In addition, two inspectors and five trustees were elected at the same time for each of the 17 wards. The trustees were actually local boards. No compensation for these officers was granted, but the county superintendent of common schools received $500 a year. The secretary of state was at the time the "Superintendent of Common Schools" for the state.

It was the beginning of one of the most interesting chapters in the history of the school-administrative service of the United States. The story of this great school system bears all the romance of American achievement in the cause of popular education. During the century the largest city school organization in the largest plant in the world was reared. Today, there is a pupil attendance of one million and a teaching force of thirty thousand.

It is interesting to note that the centennial was observed primarily by the children in the schools. In the 733 school buildings of the city of New York the teachers and pupils recalled the schools of 1842. A million children learned what it meant to write on slates, to do arithmetic on an abacus, to read from McGuffey's readers. Boys who came to school with dirty faces had them washed by girls in the presence of the whole class, as was the custom in 1842. Other boys had to wear dunce caps and sit in a corner of the classroom. At Public School 15, the Bronx, there was a spelling bee conducted by a visiting school trustee who arrived in a horsedrawn gig. In the high schools special ceremonies contrasting the narrow instructional program of the academies of 1842 with the present metropolitan and vocational schools were held. The Lancastrian, or monitorial, plan of instruction, which was expected to save the scarce public funds available for teachers' salaries, was demonstrated.

The function of the first board of education of New York was burdensome because it involved attention to many details of the school service — the hiring of teachers, the selection of books and supplies, the management of tax funds, etc. All these duties of board members have been passed on to the superintendent of schools and his professional staff, and to the executives of the business division of the school administration. The duties and responsibilities of the board and of its membership have not lessened in the course of the century even though they are almost wholly limited to policy making, to reviewing the work of the professional staff, and to the control of finances and public relations. The New York schools have almost invariably enjoyed the membership of men and women with high ideals of public service. Without their self-sacrificing and unselfish work the schools of the largest city could not have developed the high standards and broad effectiveness which have been and are their finest boast.

Safety in the Schools

THE vast disturbances caused by the war in the placid conduct of the schools are not without major value in numerous aspects of the educational program. The teaching of safety, for example, has received a new impetus because both teachers and pupils have become seriously aware of the dangers in which they live and move. The instruction relating to air raids and the drills intended to safeguard children from this inhuman form of attack on the civilian population has called vividly to mind a variety of hazards.

During war the conservation of man power from the harm of accidents and illness is of particular importance. Children quite as much as adults are a part of the American man power which must win the war. As Dr. N. H. Dearborn, vice-president of the National Safety Council, well says: "The responsibility of the schools simply cannot be overestimated. In 1940 the number of deaths in the United States by accident was 12,258 for those between 5 and 19 years of age. That

was 28 per cent of all deaths in that age group and very much higher than deaths for any other single cause. Add to that accidents resulting in some form of permanent injury and temporary disability and the total result is appalling. A very large part of this age group is in school so the safety education problem of our schools is one of major magnitude. Furthermore, effective safety education among youth is enormously effective among their elders in the home and local community."

The teaching of safety can readily be made a part of instruction in social sciences, industrial arts, health and physical education, and home-room activities. It will require little effort and time to make children — not fearful or timid — but conscious of good safety practices and habitually safe in their habits of action in the school, on the playground, on the street, and at home.

The School Boards and Education

AT THE San Francisco meeting of the Educational Policies Commission, in February, Supt. John A. Sexson, of Pasadena, made the following significant statement:

"Let me say that the people who elect and control the local school boards of America also elect and control our federal officials and lawmakers. The school boards of America, given the chance, can and will do the complete job of education for youth. There are tremendous resources under the control of these agencies — resources in buildings, personnel, local contacts, and special knowledge and skill. America should use these resources rather than thrusting them aside in favor of a federally controlled program for a part of the education of a part of the youth."

There has been a tendency on the part of some educators, particularly college men who occupy extremely sheltered positions far from the realities of city and country schools, to belittle the work of boards of education. An active superintendent like Mr. Sexson understands the enormous resources for democracy which the boards of education represent.

Hawaiian Schools Under War Conditions

FROM Hawaii comes a heroic story of schools carrying on under tragic war conditions. Although it was necessary to close the schools during December, following the declaration of martial law, and school plants were used in many communities for hospital purposes and for the housing of evacuees, all the teachers were at work during the entire time and school offices were open 24 hours a day. Many schools reopened in January, and since early in February, all the schools have been in full operation.

As reported by Supt. Oren E. Long, the schools are carrying on, even though it is necessary that many classes be held in private homes, or in the former Japanese-language schools. Curriculum modifications have been made to provide for fire, gas, and air-raid precautions, and also to allow of the maximum use of the emergency daily double-shift sessions.

Mr. Long completes his report by saying that morale is high among teachers and pupils.

WHY SHOULDN'T UNCLE SAM LET HIM BECOME FAMILIAR WITH A FEW GOOD AMERICAN BOOKS?

Cutting Graduation Costs

THE problem of graduation costs arises annually for consideration by school authorities. This year, in spite of the general prosperity in industrial communities, there is a greater demand than ever for simplification of graduation dress and graduation functions.

A war year like the present should be utilized to the full in teaching the values of American life and American democracy. Graduation is the one final opportunity for the school to teach informally but firmly the opportunities of living in the United States and of partaking in the work of the country as a whole and of the local community.

This year more than ever, there is no time for unnecessary display and extravagance. Rivalry in dress, and unnecessary expenditures for decoration and for elaborate social functions, should be frowned upon by the boards of education. The greater the self-activity of the students in conducting the programs, the more effective will be the lessons they convey.

Education is more than the acquisition of skills and knowledge. Not knowledge, but the love of knowledge and the desire to acquire and use it characterize the educated man.— Dr. Sidney C. Garrison.

The School-Board Member Looks at Statistics—VI

R. L. C. Butsch, Ph.D.[1]

Why Make Special Types of Graphs?

In the two previous articles, we have dealt with the comparison of magnitudes by means of graphical representation: first demonstrating the various ways in which two magnitudes can be compared; and then considering the more desirable methods of comparing more than two magnitudes on the same graph. There remain two special cases of this type of comparison — those in which the magnitudes are distinguished by differences in space, or geography; and those in which they are distinguished by differences in time, or order of occurrence.

Spatial or Map Comparison of Magnitudes

In certain instances, it is desirable to show graphically the difference in some measurable trait or some characteristic capable of being counted, or measured in some other numerical quantity, between different geographical areas. For example, the total area involved might be the United States, and the smaller areas between which the comparison is to be made might be single states, or sections including several contiguous states. Or the total area might be a single city, and the smaller areas to be compared might be wards, or school districts, or any other convenient and meaningful unit. Such type of comparison is usually shown in one of two ways. First, there is the method in which the differences are shown by means of variations in the cross-hatching of the areas in question. Second, there is the method in which each unit — or convenient multiple of a unit — is represented by a dot or other significant unit on the map itself. The method to be used in a particular case may depend largely upon the purpose of the statistician who makes the graph.

As an example of the first method of map representation, the data of Table I are presented. The figures there given are based on data obtained in the *National Survey of the Education of Teachers*. Of course, an examination of the table reveals all of the pertinent facts concerning the states; and the introduction of sectional groupings of the states also brings out certain sectional differences. However, Figure 1, based on this table, also makes clear in a somewhat more graphic manner many of the same facts. It will be noted that in transferring the information from the table to the graph, it is necessary to determine some convenient grouping of the variations. In this case, the groupings are by variations of 10 per cent — 0.0 to 9.9; 10.0 to 19.9, etc., up to the final group of 40.0 per cent or over. An examination of the map makes clear that the highest percentages of new teachers, by states, are found in the Mountain section, especially the northern part; and the next highest in the West Central section, especially the West North Central.

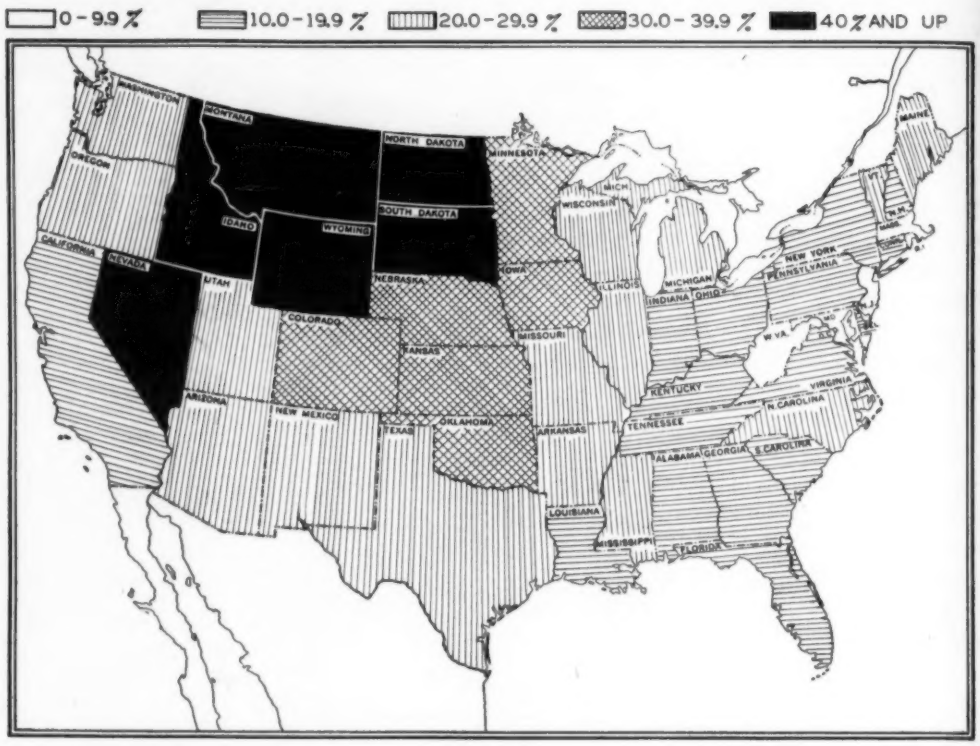


Fig. 1.

The second type of map graph, with individual cases represented by dots or other marks, is illustrated by Figure 2. This is a map of a county in Wisconsin, divided into towns. Each star [*] designates a high school attended by the graduates of the rural schools in a particular year. It is to be noted that eight such stars are within the county, and four others are just outside the boundaries, in contiguous counties. Each dot on the map represents an eighth-grade graduate of the rural schools who attended high school the

(Continued on page 50)

[1]Professor of Education, Marquette University, Milwaukee, Wis.

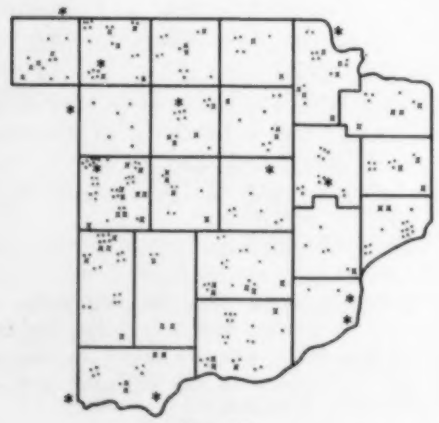


Fig. 2.

TABLE I. Per Cent of Elementary Teachers Employed in 1930–31 Who Were New to Their Positions, by States

New England	*11.9*	West North Central	*34.5*
Maine	21.1	Minnesota	31.1
New Hampshire	18.6	Iowa	32.9
Vermont	24.5	Missouri	20.7
Massachusetts	7.5	North Dakota	46.5
Rhode Island	6.4	South Dakota	45.2
Connecticut	10.2	Nebraska	39.0
		Kansas	35.7
Middle Atlantic	*12.8*		
New York	13.3	West South Central	*24.3*
New Jersey	8.6	Arkansas	27.3
Pennsylvania	13.7	Louisiana	14.4
		Oklahoma	32.6
South Atlantic	*16.9*	Texas	24.8
Delaware	16.9		
Maryland	9.3	Mountain	*35.8*
Dist. of Columbia	6.3	Montana	41.9
Virginia	17.2	Idaho	40.0
West Virginia	8.7	Wyoming	41.1
North Carolina	20.8	Colorado	38.2
South Carolina	18.3	New Mexico	29.9
Georgia	17.0	Arizona	28.8
Florida	18.6	Utah	21.5
		Nevada	40.0
East North Central	*20.0*		
Ohio	14.7	Pacific	*20.0*
Indiana	13.9	Washington	26.1
Illinois	24.1	Oregon	27.1
Michigan	22.7	California	15.4
Wisconsin	28.4		
		United States	*20.5*
East South Central	*17.8*		
Kentucky	15.7		
Tennessee	16.3		
Alabama	18.7		
Mississippi	27.2		

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(Continued from page 48)

following fall. Each x represents an eighth-grade graduate who did not enroll in any high school. From such a map certain deductions may be drawn concerning the effect of distance upon high school attendance of rural school graduates. Thus, in certain towns, where high schools are convenient, all such graduates enrolled in high school. In others, where no high school could be reached except

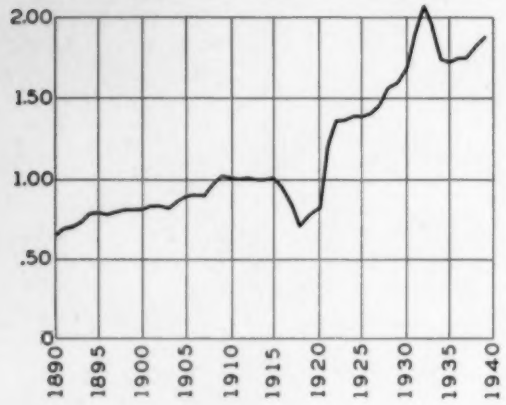

Fig. 3

by traveling a considerable distance, a much smaller percentage enrolled. On the other hand, it is also clear that in certain towns, even with a high school conveniently located, a fairly large proportion of eighth-grade graduates did not see fit to attend. Such a spot map is valuable in making clear where high school facilities are not readily available; and also where such facilities are not reaching as large a proportion of the rural graduates as might be desired.

Comparison of Variations on the Basis of Time

In many cases it is desirable to show in graphical form the variations which take place in some measurable quantity over a period of time. The time interval used as a unit may be a year, a month, a day, or even a smaller period; or it may be by five or ten or more year periods. In each case, the maker of the graph attempts to select a unit which will make most clear the type of variation which he has found in the data. An example of this type of graph is shown in Figure 3, based on the data of Table II. This table gives for each year from 1890 to 1939 the index of purchasing power of teachers' salaries in the United States. The index for each year was obtained from the index of the cost of living, as furnished by the Bureau of Labor Statistics, and the average salaries of teachers, as given by the *Biennial Survey of Education*. For earlier years, the table is that presented in a *Research Bulletin of the National Education Association*; for later years the data were taken from the same basic sources. The graph shows in much more impressive fashion than the table, the drop in purchasing power of teachers' salaries during World War I, and the two periods of rapid increase up to 1932, several years after the beginning of the depression period; following 1932 there is a decrease in purchasing power, with another slight upswing beginning in 1938.

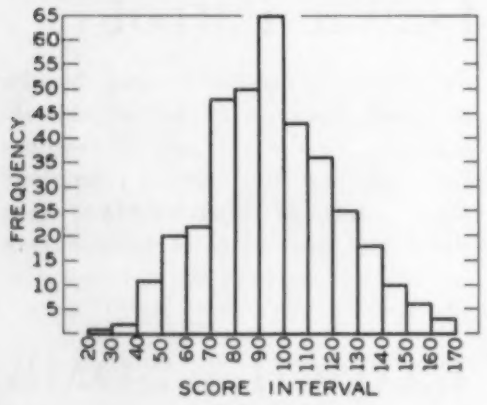

Fig. 4

TABLE II. Index of Purchasing Power of Teachers' Salaries, 1890–1939*

Year	*Index 1913 = $1.00*	*Year*	*Index 1913 = $1.00*
1890	$ .65	1915	$1.01
1891	.69	1916	.95
1892	.70	1917	.83
1893	.73	1918	.71
1894	.78	1919	.77
1895	.79	1920	.82
1896	.78	1921	1.21
1897	.80	1922	1.36
1898	.82	1923	1.37
1899	.82	1924	1.40
1900	.82	1925	1.39
1901	.84	1926	1.42
1902	.84	1927	1.47
1903	.83	1928	1.57
1904	.87	1929	1.60
1905	.90	1930	1.69
1906	.91	1931	1.91
1907	.90	1932	2.07
1908	.98	1933	1.96
1909	1.03	1934	1.75
1910	1.01	1935	1.73
1911	1.00	1936	1.75
1912	1.01	1937	1.75
1913	1.00	1938	1.83
1914	1.00	1939	1.89

*Data for 1890 to 1926 from *Research Bulletin of the National Education Association*, May, 1927. Additional years based on Index of Cost of Living of Bureau of Labor Statistics, and average annual salaries of teachers, from issues of *Biennial Survey of Education*.

While the few examples given do not begin to exhaust the possibilities of graphical representation of data, they have furnished illustrations of most of the typical kinds of graphs based on comparison of magnitudes or quantities. The principal points to be kept in mind by those who read graphs is that in each case the statistician is attempting to present his data in a form which will make their meaning more clear; and that any type of data which can be expressed in numerical form may also be represented by some appropriate kind of graph.

TABLE III. Distribution of Scores Earned by 360 Pupils on a Test; and Cumulative Frequency Distribution

Score Interval	*Frequency*	*Cumulative Frequency*
160–169.9	3	360
150–159.9	6	357
140–149.9	10	351
130–139.9	18	341
120–129.9	25	323
110–119.9	36	298
100–109.9	43	262
90– 99.9	65	219
80– 89.9	50	154
70– 79.9	48	104
60– 69.9	22	56
50– 59.9	20	34
40– 49.9	11	14
30– 39.9	2	3
20– 29.9	1	1
Total	360	

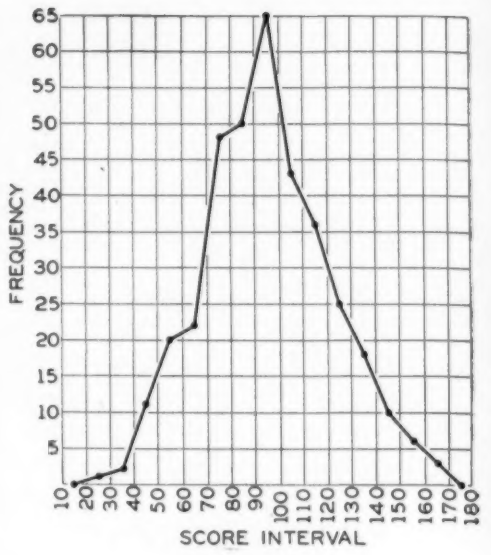

Fig. 5

Graphical Representation of Distributions

There remains one very important kind of graphical representation which is frequently met with in educational writings; namely, the graphical representation of a distribution of data of a continuous type. Table III presents such a distribution of test scores earned by a group of pupils. It is to be noted that, following an earlier discussion, the scores are grouped into intervals of 10; thus all pupils who earned scores from 40 to 49 are lumped together at that interval in the table; and similarly for those who earned scores from 30 to 39, from 60 to 69, etc. In one sense, this table could be represented in a graph made up of separate bars, either horizontal or vertical. But, in another sense, this type of data differs from the kind ordinarily so represented, in that the data are continuous. In other words, at least theoretically, a pupil could have a score of 39.9 or even of 39.999; that is, any particular integral or decimal score is theoretically possible. For that reason, the graph is usually made continuous, without a definite break between the various segments or groups.

One method of representing the data of Table III in a graph is shown in Figure 4. In this case, all the bars are made of the same width, and their heights are proportional to the number of cases found at each interval; but no space is left between them. This type of graph has the advantage that each case or individual involved is represented by a particular area; and the total area under the graph is equal to the total number of cases or individuals. Where data simply represent a particular sample of pupils, as in this set of data, or a particular sample of some other units; and no attempt is made to deduce anything for a larger group, this kind of graph is to be preferred.

In many cases, however, the particular group of individuals involved in the sample measured are important only because of the deductions concerning a larger total population which may be drawn. Thus the particular pupils included in Table III might be thought of as having been drawn from a much

(Concluded on page 52)

I THOUGHT I KNEW EVERYTHING ABOUT MAINTENANCE SOAPS! BUT...

1. THEY SAVE REFINISHING!

It pays to buy all of your maintenance soaps from *one source*. And it pays to use exactly the *right soap* for the *right job!*

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Here, in a nutshell, is the reason so many schools have switched to the Colgate-Palmolive-Peet line of maintenance soaps—and will accept no other. For they find they not only get the finest products —but they save on refinishing, save time and labor, and cut material costs, too!

3. THEY SAVE MONEY!

Before you place your next order, write for the "Buying Guide" of Colgate-Palmolive-Peet Industrial Maintenance Soaps. It's free! Or, better yet, call in a cleaning expert from the C.P.P. Advisory Service. There's absolutely no obligation! *Write today!*

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HEYWOOD-WAKEFIELD

Established 1826

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(Concluded from page 50)

larger total population of pupils of the same grade level throughout the country. In such a case, it becomes desirable to try to discover

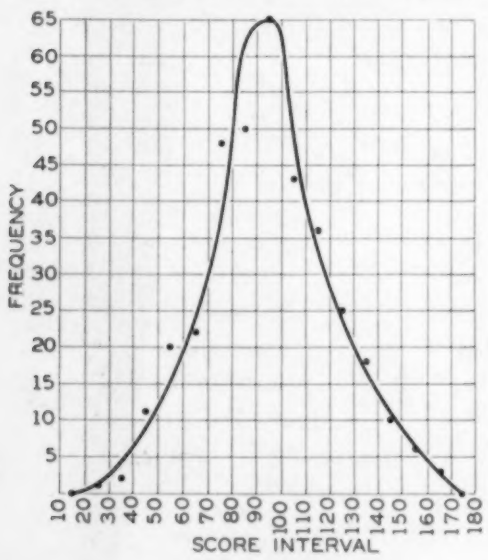


Fig. 6.

what would be the distribution of all of these pupils on the same test. As a first step in that direction, a graph such as that shown in Figure 5 may be constructed. In this case, a mark is placed at the middle of the space represented by the interval, and at the height indicated by the number of pupils in the interval. These points are then connected, and the graph is extended to the zero point at the middle of the next two intervals.

A final step may be taken if it is assumed that the slight irregularities in this curve are due only to the particular sample included in the table. In such a case, these irregularities are eliminated, and the curve is drawn as in Figure 6. This figure does not really represent the data of Table III; however, it does represent what the statistician deduces would be the shape of the distribution if larger and larger numbers of pupils were tested, until finally the entire group of pupils of that grade were included. In this instance, the smoothing of the curve has been done very simply and directly, in order to illustrate the graphic result only. In actual practice, of course, the statistician would require more data, and would smooth the curve in accordance with definite statistical procedures, until he was reasonably sure that he could justify the final graph as the one most probably representing the distribution of the entire population on the particular measure.

The Cumulative Frequency Graph

A variation of the last mentioned type of graph is one in which the height of the curve at any point is determined, not by the frequency or number of cases in the particular interval, but by the accumulation of all frequencies up to that point. In the last column of Table III the cumulative frequencies for each interval are shown. These are obtained by adding together all frequencies in lower intervals, and the interval in question. The frequency for the next interval is then added to this total, to obtain the accumulation at

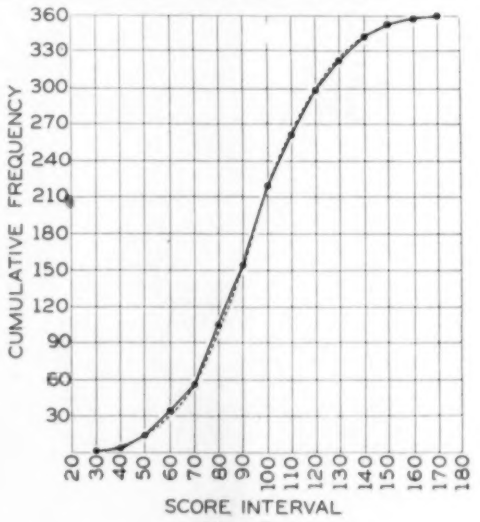


Fig. 7.

that point; and so on for each additional interval. When these cumulative frequencies are represented on a graph, Figure 7 is the result. The major advantage of such a graph is that it is possible to read from it directly the number of pupils who made a certain score, or less. When the cumulative frequencies are taken directly from the table, usually an irregular curve results, as shown by the solid line in Figure 7. Here again, the statistician may feel that he is justified in smoothing the curve — with proper statistical procedures — in order better to represent what would be expected to occur if a more complete sampling of the population had been obtained. The effect is in Figure 7.

"Miss Jones, my secretary will have a good deal of figure work to do."

"I had a complete calculating machine course in school, I'm not afraid of figure work."

MONROE EDUCATOR... *a stepping-stone to better jobs*

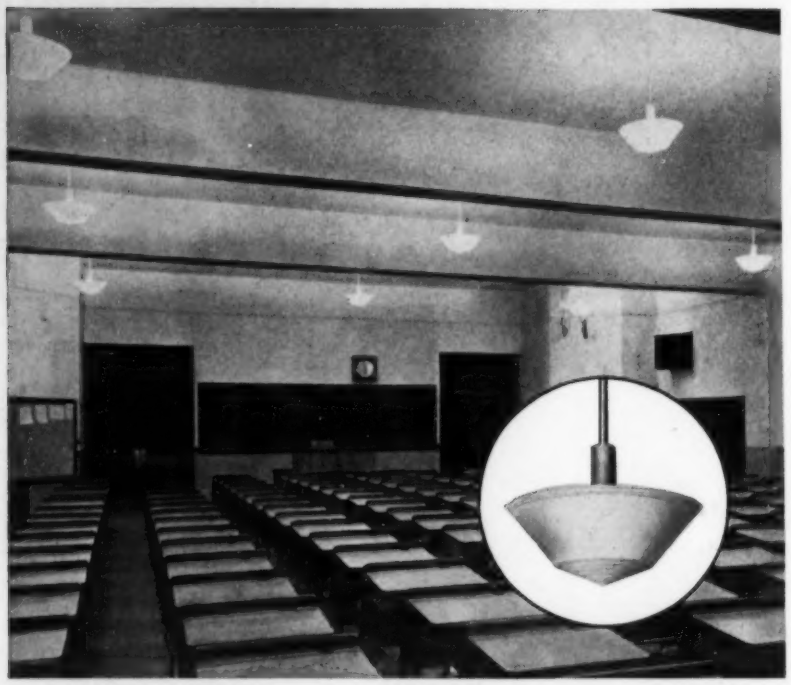
THINK what it means to a Secretary to handle the confidential figures of her boss, as well as his typing. It gives her a firm added hold on her job, and also enables her to get a picture of the business that she could get in no other way. Calculating machine operation is becoming a recognized part of secretarial practice training in schools all over the country.

Have you looked into the Monroe Educator for the schools in your charge? It will pay you to get full information about the Educator and the Monroe Office Practice courses. The Educator is a regular Monroe Adding-Calculator, made for schools, and sold to schools only, at a special price to fit school budgets. Call the nearest Monroe branch or write to our Educational Department.

MONROE CALCULATING MACHINE COMPANY, INC.

***Educational Department*, ORANGE, NEW JERSEY**

Meet the new demand for EYESIGHT PROTECTION *with Wakefield* COMMODORES



Mother and Dad are back in school again! At night, in classrooms where their children study by day, parents are fitting themselves for a new place in the service of their country and their community. And with this has come a more insistent demand for good light in poorly lighted classrooms.

You can meet it with Wakefield COMMODORES! If your budget is limited, plan to solve your lighting problem "a room at a time" as funds become available. Simple and quick to install, COMMODORES can, in effect, modernize seeing conditions in any classroom overnight.

COMMODORES provide more light than most indirect fixtures to protect the eyes of young and old alike; 86% of the light from the bare bulb by test of impartial Electrical Testing Laboratories. Maintenance cost is low. Molded Plaskon shade is easy and safe to clean and handle. Write for details.

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52 American Park, VERMILION, OHIO

NELA PARK CONFERENCE ON SCHOOL LIGHTING IN WARTIME

Thomas J. Higgins, Chicago, Ill.

Nela Park, the Light University of the world, was again host on April 1 and 2, to the school officials of America in an excellent demonstration of the progress and ingenuity of the lighting industry in meeting wartime needs. New methods in lighting were graphically and physically displayed.

The efficient use of light, by the proper selection of colors for walls and ceilings, can be readily seen by the contrast of chocolate brown, which reflects only 8 foot-candles, through the color range of greens and tans to white, which reflects 28 foot-candles from the same light source. The loss of light transmitted through various kinds of glass shows a variable, few of us are aware of, as demonstrated by various types of ground and etched glass. With the expanded use of light in our schools today, for defense classes, these factors should be given greater consideration than ever before. Many facilities can be adopted for aiding vision without raising light intensities. The frequent cleaning of light sources and reflectors is also important. The angle of desk tops will improve vision as much as 30 per cent.

Desk tops of light-colored materials were effectively demonstrated to eliminate brightness contrasts between white paper and the traditionally brown working surface, a suggestion worthy of consideration by seat and desk manufacturers.

Ingenious substitute materials for lighting fixtures and reflectors are being experimented with to eliminate the use of vital material — pressed wood and compositions in place of metal, paints and enamels in place of aluminum and chrome. The results are surprising.

Eyestrain is now being recognized as muscular strain. At 1 foot-candle, the strain is three times as great as at 100 foot-candles.

We all know the term "foot-candle power." It has been suggested that a better measurement of lighting would be the "foot lambert." Rather than reading the amount of light that strikes the working surface, it is more important to measure the amount of light that is reflected from the working surface to the eye. This measurement is known as *foot lambert.*

New lighting for schools in general will have to be delayed until after the defense needs are met, except in technical and vocational rooms, where it is anticipated priorities will be honored.

Blue lights were used by the Navy during World War I for blackouts. Today's war is a three-dimensional war and experiments have proved that blue lights are not wholly satisfactory. Red lights have some advantages over the blue, but what glow escapes and is seen from above, is definitely red in color. Probably a compromise between blue and red, or even a type of white light, may be approved by the Federal Government for blackout lighting.

It has been determined that in a blackout, street illumination measuring only .0003 foot-candles is sufficient to see to move about on foot. This is approximately the light we have on a bright clear night from the stars.

Germicidal lamps are being developed to combat and reduce air-borne infection. These lamps of the ultraviolet-ray type, are mounted above the eye level, in a shielded trough. Their light output is very little and is not intended to supplement the regular room illumination.

Dr. Matthew Luckiesh, Director of Research at Nela Park, was the speaker at the banquet on Wednesday night. His topic, "Scientific Research as a Weapon," was most interesting and held a promise that ultraviolet rays will some day be transmitted from all our electric-light sources.

NEWS OF OFFICIALS

● CHARLES GILMAN has been appointed auditor of the board of education of New York City. Mr. Gilman, who succeeds Frederick D. Chambers, was formerly deputy auditor and entered the school board service as an office boy, and worked his way up until he became connected with the budget department. He had a flair for figures which led to jobs of increasing responsibility. In the budget department he was especially helpful and could wade through pages of statistics with ease and facility. Mr. Chambers, the predecessor of Mr. Gilman, is retiring on a pension.

● The school board at Amesbury, Mass., has reorganized with CHESTER S. COFFIN as president, and MRS. JOSEPH HUME as secretary.

● W. GERRY MARTIN has been re-elected as president of the school board at Marblehead, Mass.

● HOMER, HIRZEL, a member of the school board at Guthrie, Okla., died in a hospital on March 8. He had been a member of the board since April, 1925, and had served as president from 1933 to 1935.

● OSCAR W. SCHMITZ, a member of the board of education at Sheboygan, Wis., died March 19.

● MAJOR W. E. BURNEY, president of the board of education of Dist. No. 1, Pueblo, Colo., has been called to service as a reserve officer. The board has granted him a leave of absence.

● PROF. W. H. MEEKER has been re-elected president of the school board at Ames, Iowa.

● The school board at Iowa City, Iowa, has reorganized with MRS. HOWARD L. BEYE as president; CHARLES H. GALIHER as secretary; and GLENN R. GRIFFITH as treasurer.

PEABODY Offers This 5 Point Plan to Meet Your Seating Needs

Keeps Class Rooms Up to Date at Low Cost

School Boards must buy wisely — save where possible — and continue to keep school rooms properly furnished. To aid you in providing modern seating for your schools at minimum cost, Peabody recommends this 5 point plan:

1—Refinish present seating.
2—Repair broken desks.
3—Rearrange present seating to increase capacities of rooms.
4—Add movable seats to increase teaching efficiency and flexibility of classrooms.
5—Use wood folding chairs and Peabody Tables to increase use of present rooms.

It costs nothing to discuss your seating problem with our representative. He is in position to do any service work, provide proper repair parts, and give expert help in seating arrangement. Write for his name and address.

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No. 73

PEABODY WOOD FOLDING CHAIRS ONLY $1.25 EACH

The steel folding chair is now replaced by the wood folding chair. There is little sacrifice to make, because of the steel shortage, however, as Peabody's Wood Folding Chairs are their equal in service and comfort, require no more storage space, and are as easy or easier to handle. They are a better value, as they cost half as much as steel chairs. The Peabody No. 73, pictured here, costs only $1.25 each, f.o.b. factory. If your school needs folding chairs, order them at once.

PORTABLE WOOD ASSEMBLY CHAIRS

For auditorium and assembly purposes, Peabody No. 21 Portable Assembly Chairs are recommended. They are comfortable, sturdy, easy to handle, easy to store, and will last, under hard usage, for many years. They are available in single chairs or in sections of 2, 3 or 4 seats. Five other models are available. Write today for free catalog and prices.

No. 21

PEABODY SEATING CO., Box 1 NORTH MANCHESTER INDIANA

Teachers' Salaries

EVANSVILLE SINGLE-SALARY SCHEDULE

The board of education at Evansville, Ind., has approved a new single-salary schedule, which equalizes pay for training and experience, regardless of the grade level of the teacher. The plan was worked out by the school board and a committee of the Evansville Federation of Teachers.

The schedule affects only those teachers who have obtained degrees. The schedule will in no way reduce the salaries paid teachers below the salary received during the school year 1941–42. In other words, teachers now employed will not be placed on the schedule below the salary which they were receiving during the year 1941–42.

Teachers in the A.B. degree group will receive increases of $75 per year, beginning with the second year, and continuing to the ninth year. Beginning with the tenth year, such teachers will be paid annual increments of $50 per year, up to the nineteenth year, when they will receive a maximum of $2,225. An increase of $25 will be paid until the final maximum of $2,250 is reached in the twentieth year.

Teachers in the M.A. degree group will be given increases of $75 a year, beginning with the second year, and continuing to the ninth year. Increases of $50 will be given, beginning with the tenth year and continuing up to the nineteenth year, when a maximum of $2,325 will be paid. Another increase of $25 will be paid until the final maximum of $2,350 is reached in the twentieth year.

Teachers in the Ph.D. group will be given increases of $75, beginning with the second year, and continuing up to the ninth year. Increases of $50 will be paid then continuing up to the nineteenth year, when a maximum of $2,425 is reached. Another increase of $25 will be paid until the final maximum of $2,450 is reached in the twentieth year.

Under the rules, teachers in elementary or high schools, who do not have a degree and who are at the maximum under the old schedule, will not be entitled to receive further increases in salary. Teachers who are not at the maximum under the old schedule, will be advanced $75 per year until they reach the new schedule.

Teachers will be rated annually on their success in teaching. This rating will be based on "the measurement of the efficiency of teachers," and all teachers will be grouped into four classes of success grades. Teachers in the *A* group will be eligible to receive the maximum annual increase; those in the *B* group to receive one half of the annual increase; those in the *C* group will receive no increase; and those in the *D* group will be subject to dismissal.

No credits will be recognized by the school system unless they are obtained from a college or university in good standing. All training must be established by official transcripts.

Changes in the teacher training which may affect the salary of a teacher will not become effective during the school year following June 1, but will be given the normal rate of increase the following school year.

All teachers who enter the schools from other systems will receive full or part credit for such teaching. Their position on the schedule will be determined by their particular fitness for a position in the schools.

FOUR-POINT TEACHERS' PAY AND EMPLOYMENT POLICY

The board of education of Winona, Minn., on February 10, adopted a four-point policy relating to the employment and pay of teachers during the war emergency.

In the new policy, it was the purpose of the board to maintain the school's high educational standards and goals so far as possible, while holding expenditures to the lowest practical minimum.

1. The salary schedule will be maintained.
2. The six quarter-hour credits periodically required under the schedule may be earned from a recognized teacher-training institution through correspondence or Saturday classes.
3. Teachers under contract, and those formerly under contract whose husbands have been called into war service, will be employed in the schools on a letter-of-employment basis until the husband returns to civilian life.
4. The salary of long-term substitute teachers will be adjusted to meet the individual case.

Under the schedule, salary payments will be made on teacher-training bases as follows: (1) teachers having two years or more of training at an accredited teacher–training institution will be scheduled to a maximum salary of $1,550 per year; (2) teachers having three years or more training will be scheduled to a maximum salary of $1,650 per year; (3) teachers having a bachelor's degree will be scheduled to a maximum salary of $1,800 per year.

The minimum salary paid any teacher will be $1,200 per year. Yearly increments of $50 will be paid until the maximum has been reached. The scheduled increments will start from the point in the schedule at which the teacher is being paid at the time, and will continue until the proper maximum for his group has been reached.

Additional special increments will be paid: (*a*) $200 for married men, (*b*) $100 for master's degree, (*c*) $100 for head of a major department (6 or more teachers), (*d*) $50 for head of a minor department (3 to 5 teachers), (*e*) additional increments from any combination of special increments will not entitle any teacher to receive more than a maximum of $2,100 per annum.

All salaries now paid in excess of the maximum as established will continue until reduced by the board.

YOUR STUDENTS ARE YOUR CREDITORS!

No. H-17 Four Student Table

In a very real sense a school owes its student body a great obligation—accurate guidance. This is particularly the case in laboratory courses where the physical equipment used plays such an important part in teaching. It is literally true that the schools of the future will rise or fall with the excellence or deficiency of their science departments.

The modernization of a science laboratory can often be accomplished over a period of years. Radical changes and immediate large expenditures are seldom necessary. Write today for the services of a trained Sheldon Sales Engineer to assist you in planning your Laboratories for Chemistry, Physics, General Science, Home Economics and Industrial Arts.

No. H-49 Chemistry Table

E. H. SHELDON & CO.

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MICHIGAN

PROGRESSIVE SALARY PLAN FOR RURAL SCHOOLS
Harris Single-Salary Schedule

The Harris township board of education at Harris, Mich., has adopted a single-salary schedule, which provides the same salary for elementary and secondary teachers, based on comparable teaching experiences and academic training.

The new schedule recognizes the value of a teaching experience and academic or college training and offers each teacher an increase in salary commensurate with experience and training. The increases which vary from 6 per cent for some teachers to 18 per cent for others, will go into effect July 1, 1942.

The Schedule

Under the schedule, teachers with no experience but having one year, or 30 semester hours of professional training, will begin at $800 and will advance at the rate of $20 per year up to the maximum of $900 at the end of five years. Teachers with two years, or 60 semester hours of training, will begin at $850 and will advance at the rate of $25 per year up to a maximum of $1,000 at the end of seven years. Teachers with three years, or 90 semester hours of training, will begin at $925 and will advance at the rate of $50 per year up to a maximum of $1,100 at the end of 10 years. Teachers with four years of training will begin at $1,000 and will advance at the rate of $100 per year up to a maximum of $1,300 at the end of 12 years. Teachers with five years' training will begin at $1,100 and will advance at the rate of $100 per year up to a maximum of $1,430 at the end of 15 years.

Under the rules, four years of training or the equivalent of 120 semester hours means the graduation from a four-year curriculum of a college or university, the possession of a degree, and the possession of an elementary or secondary teacher's certificate.

Teaching experience outside of the school system will be evaluated to provide for one fifth credit for experience outside of the state, and one half credit outside of Harris township.

Teachers who enter the school system for the first time will be placed in the schedule according to their experience and training, or as the prevailing conditions seem to indicate.

All principals in the schools will receive $18 per month in addition to the regular salary based on the schedule.

The athletic director will receive $10 per month in addition to his salary based on the schedule.

THE IONIA SALARY SCHEDULE

The board of education at Ionia, Mich., has adopted a new salary schedule, which divides all teachers into two classes, (1) those with four years' preparation and an A.B. or B.S. degree, and (2) those with five years' preparation and an M.A. degree. Teachers with four years' preparation will begin at $120 per month and will work up to $135 per month. Teachers in the second class, with five years' preparation will begin at $130 per month and will work up to a maximum of $145 per month.

All teachers who complete five years of service and show evidence of professional growth, will be given increases of $50. Further increases of $50 will be given for the second unit of five years, which is optional. An undetermined amount will be set in recognition of special preparation, exceptional ability, or additional assignment to duty.

Personal News

● Supt. W. J. Robertson, of Las Vegas, N. Mex., has been re-elected for a three-year term.

● Supt. E. T. Miller, of Hannibal, Mo., has been re-elected for his twelfth year on a two-year contract.

● Supt. Olin W. Davis, of Dayton, Ky., has been re-elected for another four-year term.

● Supt. P. F. Schaefer, of Macomb, Ill., has been re-elected for another term.

● Supt. L. F. Carson, of Gaffney, S. C., has been re-elected for another year.

● Rev. John T. Neal has been appointed superintendent of schools at Ferguson, Ky., to succeed A. H. Freer, resigned.

● Supt. A. W. Mead, of Plainfield, Ill., has been re-elected for a fourth term.

● J. Robb Harper, superintendent of schools at Wilmette, Ill., since 1908, will retire in July.

● Supt. C. I. Clark, of Stambaugh., Mich., has been re-elected for another year.

● Paul L. Best has been elected assistant superintendent of schools at Ferndale, Mich. He succeeds Ralph Muller, who has gone to Gary, Ind., as business manager.

● Edward T. N. Sadler has been elected superintendent of schools at New Bedford, Mass., to succeed Allen P. Keith.

● Harrison C. Lyseth has become superintendent of schools at Portland, Me. He succeeds the late W. B. Jack.

● Supt. S. C. Haddock, of Americus, Ga., has been re-elected for another term.

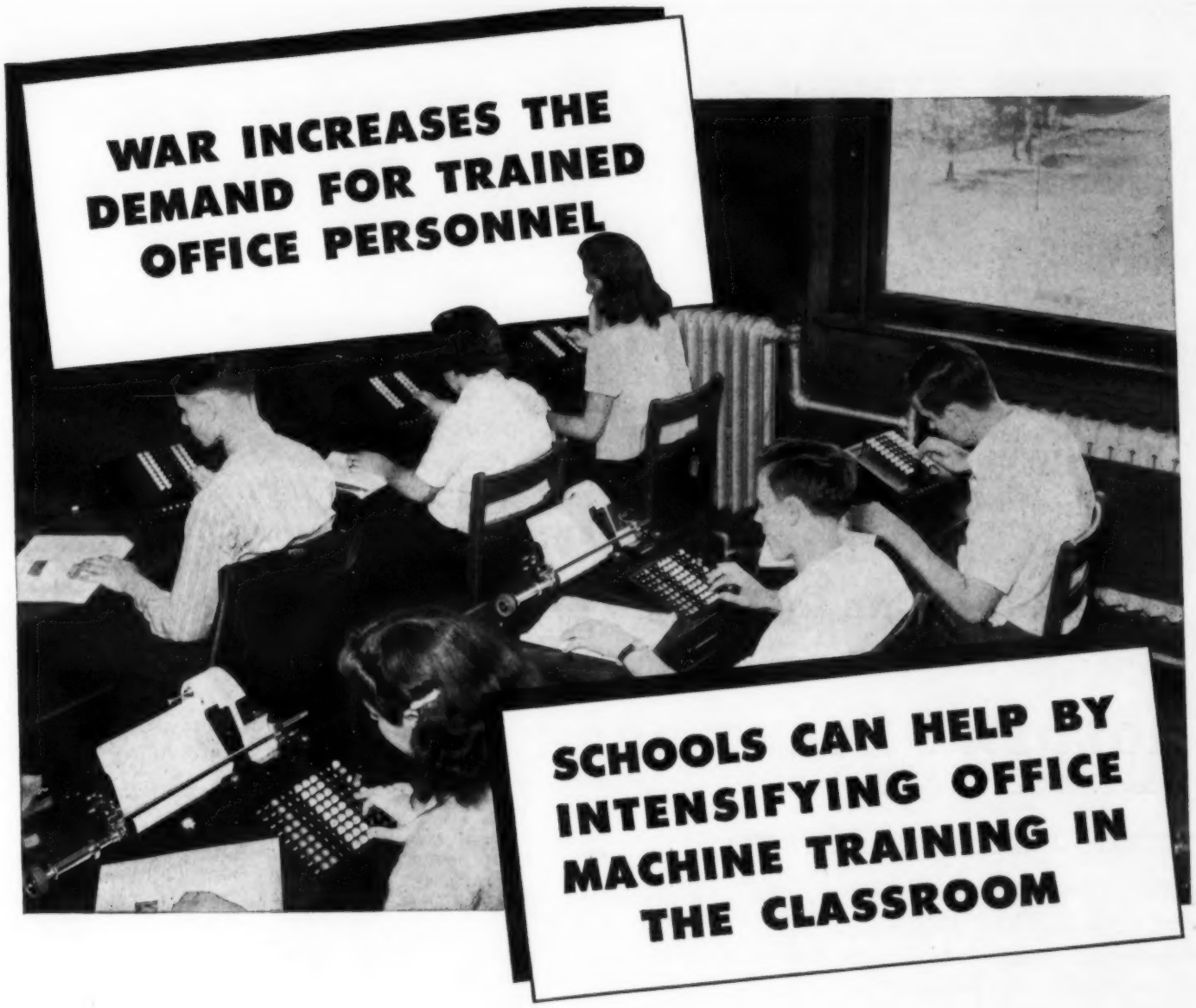
● Supt. V. E. Klontz, of Janesville, Wis., has been re-elected for a three-year term.

Death of Dr. Graham

Dr. Ben G. Graham, superintendent of schools at Pittsburgh, Pa., since 1930, died suddenly at his home on March 20.

Dr. Graham, a native of western Pennsylvania, was graduated from Westminster College with the degree of A.B. He held a master's degree from the University of Pittsburgh, and an honorary doctor's degree given by Westminster College.

Dr. Graham entered the Pittsburgh school system as a teacher of chemistry in the Central High School. In 1916 he was appointed principal of the Latimer Junior High School, and in 1917 was named principal of the Irwin Junior High School. In 1919 he went to New Castle as superintendent of the city schools. In 1926 he was appointed associate superintendent of schools in Pittsburgh, and in 1928 became first associate superintendent. In October, 1930, he was elected superintendent of schools to succeed Supt. Wm. M. Davidson.


WAR INCREASES THE DEMAND FOR TRAINED OFFICE PERSONNEL
SCHOOLS CAN HELP BY INTENSIFYING OFFICE MACHINE TRAINING IN THE CLASSROOM

War production relies heavily on mechanized figuring. Both government and industry have an urgent need for adding, calculating and bookkeeping machine operators. The nation's schools can help the war effort by providing the trained personnel to meet this demand.

The Burroughs Educational Division, with its long experience in organizing and equipping office machine practice courses, is providing practical assistance to many schools which have already taken steps to intensify their office training programs. Burroughs welcomes an opportunity to be of service to your school in this respect. Just call our local office, or write to the Burroughs Educational Division, Burroughs Adding Machine Company, Detroit, Mich.

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Waste is a major enemy which we must **attack** if we are to win our Fight for Democracy!

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Schools and the War

THE SCHOOL PLANT AND DEFENSE

The proper care, protection, maintenance, and operation of the school plant is an essential part of the defense program during the present war emergency. This emergency places restrictions on the plant proper and limits its use to only the most necessary service so that those responsible for the educational program may discharge their patriotic duty.

The Pennsylvania Department of Public Instruction, in its official bulletin, *Public Instruction,* calls on every superintendent, principal, teacher, pupil, and custodian to assume the duties of a guardian of the plant to acquaint himself with the details of the building and equipment, and to be prepared to render emergency service when the occasion demands. It points out that in doing well the job at hand, promptly and effectively, not only the school plant but many lives may be saved.

The bulletin emphasizes that constant vigilance be given so that defective parts be repaired immediately and every precaution be taken to guard against breakdowns of every kind. Minor defects, if neglected, may cause a major accident or the closing of the plant.

To prolong the life of the plant and equipment and to continue its maximum service to the community is vital to the schools and essential to defense. The following suggestions have been made to attain this important objective:

1. Require frequent inspection and adjustment of all moving parts.
2. Handle carefully all valves, traps, gauges, and other operating parts to reduce hazards and insure efficient and economical operation.
3. Insure proper oiling of parts at stated intervals.
4. Insist on cleanliness. The removal of dust and foreign matter prolongs the life of mechanical equipment and reduces wear and tear.
5. Do not permit machinery to operate, except when an actual need exists. Ventilating system should be run only when heat and ventilation are required to serve the occupants.
6. Conserve electric current and reduce the load on present equipment.
7. Insist on water supply, storage, protection, and conservation.
8. Bank boiler and furnace fires. Coal, oil, and gas consumption must be conserved by reducing the firing load and by dropping room temperatures when the building is vacated.
9. Provide definite and specific rules for the control of each plant and the personnel. The personnel should be instructed to assume full responsibility for phases of the program for which they are best prepared.

PASADENA'S BLACKOUT RULES

New regulations governing the opening of schools following the all-clear signal after a blackout or air raid have recently been released by C. W. Hippler, director of child welfare at Pasadena, Calif. The rules are as follows:

1. If the all-clear signal following a blackout or air raid is given prior to the regular opening hour of the morning session, school will open as usual. Tardiness due to delays in buses or to the arrival of students at buildings because of this emergency will be excused and not recorded.
2. If the all-clear signal is given after the regular opening hour of schools but prior to 1 p.m., schools will open as quickly as possible following the all-clear signal. This means that buses will leave for their routes immediately upon the sounding of the all-clear signal. Students should leave their homes enroute to schools as soon as possible.
3. If the all-clear signal is not given prior to 1 p.m., the schools will not open for that day.
4. If the air-raid signal is given during school hours, students should be retained in the school building. Teachers should take students to the air-raid refuge designated and should take all such precautions as are indicated in the instructions previously issued governing such an event. *Under no circumstances shall students be sent home.* After the all-clear signal is given, if there is any of the school day remaining, students shall return to their classrooms and carry on their work as usual, and school will be dismissed at the regular hours.
5. In the event of an actual bombing of the city, those buildings in the near vicinity of the bombing that have been damaged should remain closed until an inspection is made by the proper authorities. It is the responsibility of the principal to see that a damaged building is not reoccupied until it has been inspected and its use authorized.
6. All members of the teaching staff and the entire personnel assigned to a school building must report to their respective buildings immediately following an all-clear signal if there is any part of the working day remaining thereafter.

DEFENSE WORK

♦ Bardstown, Ky. The board of education is sponsoring defense shop courses for out-of-school youth. The first course consisted of metalwork, welding, forge and anvil work, and repair of farm machinery. The second course, started in April, is an elementary course in electricity.

♦ Albany, Ky. A defense course in sheet-metal work is being offered to out-of-school youth. The course will cover eight weeks and certificates will be awarded.

♦ Bloomington, Ill. The school board has appropriated $20,000 for a defense shop school. The school will offer instruction in machine shop, welding, forging, and sheet-metal work.

♦ Brainerd, Minn. The school board has voted to sponsor a defense training program for out-of-school youths in the vicinity.

Free TO ALL SCHOOL EXECUTIVES

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The Key to Locker Lock Problems is Yours for the asking

AT LAST! A MANUAL FOR SCHOOL EXECUTIVES THAT SUMS UP YEARS OF EXPERIENCE WITH LOCK BUYING, FINANCING AND CONTROL

Here, in one concise booklet, is a complete analysis of your locker lock problems and how to solve them. See how hundreds of schools have simplified their bookkeeping, improved their locker rooms, avoided refund difficulties and lowered replacement costs!

Five distinct ways to plan lock purchases are described. These alone are worth the few minutes it may take you to tear off and mail the coupon above.

There's no obligation, and it may lead to a new trouble-free efficiency throughout your entire school year! But act now, while the matter is still fresh in your mind!

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Hamilton All-Purpose Science Equipment has been designed to save you money. We know that equipping science rooms is costly especially if you can not use each science room every period in the day. You will welcome Hamilton All-Purpose science equipment. It is available at a reasonable cost. And you get the benefit of Hamilton quality . . . there is no sacrifice of quality, the low price is due entirely to simplified design and quantity manufacture.

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Hamilton can ship complete All-Purpose Science Equipment for any average size school within ten days after receipt of your order. Send in the coupon for full details.

TYPICAL ALL-PURPOSE TABLE

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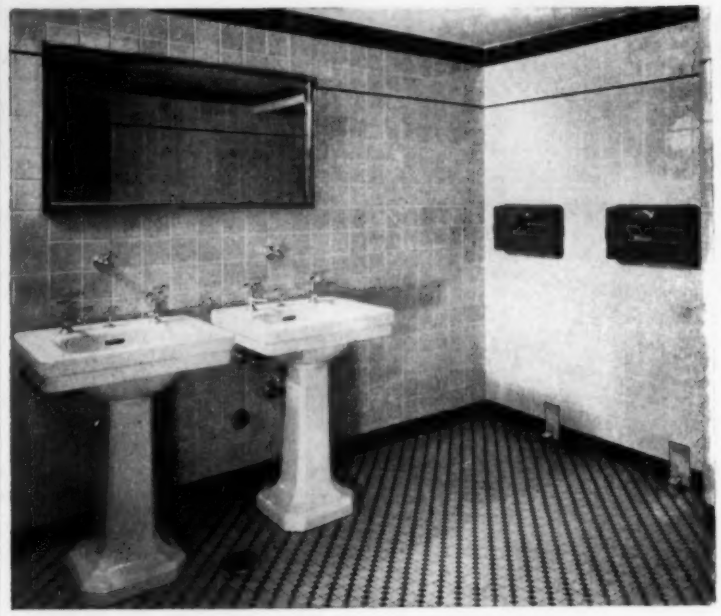
City and State .....



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THE WISCONSIN SCHOOL-BOARD CONVENTION

The twenty-second annual conference of the Wisconsin Association of School Boards and the Wisconsin Association of School Administrators was held on April 17 and 18, at Milwaukee. The school-board sessions were presided over by Samuel P. Myers, of Racine.

One of the features of the conference was a spirited discussion of competitive high school athletics. Paul F. Neverman, executive secretary of the Wisconsin Interscholastic Athletic Association, described the improvements and refinements made in the direction of health promotion, reduction in hazards, and widening of the athletic activities. He defended competitive athletics as promoting character building, physical strength, citizenship, and morality.

This contention was questioned by Dr. Herbert Sorenson, President of the State Teachers College, Duluth, Minn., who, in substance, said that it never had been proven that competitive high school athletics had any value in strengthening citizenship, character, physical efficiency, or morality. On the contrary, studies had proven that the lives of the athletes were shortened and athletics hindered rather than promoted studies.

What of the School Superintendent?

"What a School Board Looks for in a Superintendent" was the subject of an address by Harry V. Meissner, former president of the Milwaukee board of education. Mr. Meissner, in substance, stated that:

1. A school superintendent must possess broad scholarship and culture, know all branches of education. A specialist in any one branch of education is not desired.
2. A superintendent must be a constant student of economic and social changes, and thus be able to adjust the curriculum to modern needs. He must be accepted by the community and enjoy staff support in order to be successful.
3. The superintendent must primarily love children and understand the child mind.
4. He must know the techniques of instruction and hold to the observance of accepted principles and utilize and absorb the information provided by his staff.
5. He must bring a certain executive experience to his job, know something of administrative problems, acquired either as an assistant superintendent or as a principal of a school.
6. A superintendent should like his school board, the school constituency, and the community.
7. How old should the superintendent be in entering upon his job? He must be young enough to promise a reasonably long service or at least ten years.

Mr. Meissner also pointed out some of the qualifications of an ideal school board. To begin with, he held that the member of a board of education has no authority in his individual capacity. His authority begins when he acts in a collective capacity. The relationships and contacts which obtain in a school system are centered in the superintendent and not the school board. The board member, in all of his deliberations, must be guided by what is best for the children.

Where the accepted relationship between the several factors constituting a school system is violated, confusion will follow. No superintendent is perfect. The ideal superintendent must be a composite of many good qualities.

SCHOOL BOARDS TO MEET IN DENVER

The National Association of School Boards, which had planned to hold a meeting in Chicago during the second week of May, has deferred its convention until July, and will meet at Denver in connection with the National Education Association.

The meeting which is to be held under the leadership of Carl A. Widell, president, and Mr. Paul J. Wortman, secretary-treasurer, will take place on July 2.

The preliminary program is being prepared by Mr. Widell.

An Interesting Panel Meeting

A panel of board members and superintendents concerned itself with the subject of guidance and the curriculum. While the trends and ambitions of the student must be recognized, it follows, too, that the opportunities that are afforded must be measured. It is well to know what the employer expects, what jobs he expects to fill, and the qualifications he exacts.

H. W. Schmidt, state supervisor of school-building service, reported that governmental priority restrictions interfere seriously with most necessary building improvements. School buildings will continue to become obsolete and overcrowding is here and there encountered. Mr. Schmidt believed, however, that the authorities would relax some of their more restrictive rulings so as to enable the schools to function with reasonable efficiency.

PERSONAL NEWS

Supt. James E. Pease, of La Grange, Ill., has been tendered a three-year contract, to become effective July 1, 1942. Mr. Pease is completing his second year as head of the school system. During the past two years, under the direction of the superintendent, a curriculum survey and revision program was inaugurated, a central store and stock room was established, a central textbook library was developed, a department of curriculum and guidance was established, and a professional library was opened.

- Supt. E. J. Chesky, of Herington, Kans., has been re-elected for another two-year term.
- Thurman H. Bare has been re-elected as superintendent of schools at Montpelier, Vt.
- R. R. Van Duzee has been appointed director of the West Allis School of Vocational and Adult Education at West Allis, Wis. He was formerly Supervisor of Industrial Arts.
- T. Joseph McCook, formerly principal of the high school at Marlboro, Mass., has been elected superintendent of schools. He will succeed E. P. Carr, on July 1.
- William M. Stouffer, superintendent of schools at Wilmington, Del., has resigned.
- Supt. C. A. Weber, of Galva, Ill., has been re-elected for another three-year term.
- Supt. H. E. Wrinkle, of Oklahoma City, Okla., has been re-elected for a third term.
- Supt. Homer Franklin, of Stinnett, Tex., has been re-elected for another three-year term.
- Supt. L. C. Taylor, of Eddyville, Iowa, has been re-elected for the next year.
- Supt. A. I. Tiss, of Fort Madison, Iowa, has been re-elected for a three-year term.
- L. L. Long has been elected superintendent of schools at Oxford Junction, Iowa. He succeeds E. T. Jansen.
- Supt. A. A. Johnson, of Muscatine, Iowa, has been re-elected for a three-year term.
- Dr. Caroline B. Zachry has recently been nominated for the position of director of the Bureau of Child Guidance for the New York City schools. Dr. Zachry was certified for the position following searching tests in the field of education and child guidance. The position pays $12,000 a year.
- Supt. E. W. Jackson, of Beaumont, Tex., has been re-elected for a four-year term.
- Supt. C. I. Clark, of Stambaugh, Mich., has been re-elected for his nineteenth year.
- Supt. J. W. Sexton, of Lansing, Mich., has been re-elected for a three-year term.

Publications of Interest to School-Business Executives

Municipal Budget Procedure and Budgetary Accounting

Paper, vii–100 pages. Price, $1. The Muncipal Finance Officers' Association of the United States and Canada, 1313 East Sixtieth St., Chicago, Ill.

This manual, written for cities of 25,000 and upward, offers a number of distinctive aids for budgeting, including devices and procedures, work programs, the preparation of budgetary statements, budgetary accounting, and other problems of a like nature. The manual is a dependable guide for the school executive who does not want to overlook any essential procedure in his budgeting work.

National Council on Schoolhouse Construction, 1941

Paper, 59 pages. Price, 50 cents. Published by the Council, at Nashville, Tenn.

Contains the proceedings of the annual meeting, held in November, 1941, and the latest revision of the "standards" of planning and construction of school buildings.

Classification of School Expenditures

Prepared and published under the direction of Ira G. Flocken, chairman of the accounting committee. Paper, 58 pages. Bulletin No. 10, 1942, of the National Association of School Business Officials, published at Pittsburgh, Pa.

An authoritative committee report on school accounting practice, intended to be of practical help to public school business officials and school-board members throughout the country.

How to Order Buses Under the New M-100 Rationing Plan

Paper, 5 pages. Published by the Superior Coach Corp., Lima, Ohio.

A simplified summary of the rationing plan as it affects the delivery of school and passenger buses. It explains the rationing order, tells what types of vehicles are affected by the order, who is entitled to new buses, and how to obtain the required forms. The pamphlet includes a classification of Superior buses and offers six suggestions for saving time and trouble in ordering buses.

State Boards of Education and Chief State School Officers

By W. S. Deffenbaugh and Ward W. Keesecker. Paper, 103 pages. Bulletin No. 6, 1940. U. S. Office of Education, Washington, D. C.

This study of state boards of education describes present practices pertaining to such boards and officers, the method of selection, term and tenure of office, powers and duties.

List of Inspected Fire Protection Equipment and Materials, 1942

Paper, 170 pages. Issue for January, 1942. Published by the Underwriters' Laboratories, Inc., 161 Sixth Ave., New York, N. Y.

This list of inspected fire-protection equipment includes all listings up to January 1, 1942. It contains reprints of listing card reports on appliances and materials which have been examined with reference to fire-protective capabilities, and to such fire hazards and accident hazards as are involved in the groups in which they are listed.

The Home Guard Training Manual

Edited by John Langdon-Davies. Cloth, 172 pages. Price, $2.50. Chemical Publishing Co., Brooklyn, N. Y.

This book was designed originally as a manual for the British Home Guard, "a new kind of armed force, created because the new methods of invasion used by the Nazis cannot be dealt with only by the Army, Navy, and Air Force." It includes sections on the object of the home guard, organization, fieldcraft, observation and messages, obstruction and demolition, rifles, automatic weapons, hand grenades, village defense and street fighting, antitank, night training, antiaircraft, gas, and discipline and drill.

National Emergency, Safety, and the Schools

Paper, 32 pages. Price, 25 cents. Center for Safety Education, New York University, New York, N. Y.

A report on a conference comprising four symposia, including (1) safety and safety education in defense training, (2) new problems of safety supervision and instruction, (3) relationship of the schools to civilian defense, and (4) liability and school insurance.

A School Safety Program for the Emergency

Prepared by the Committee on Teacher Education for Safety. Paper, 48 pages. Bulletin No. 21, 1942. Published by the National Safety Council, Chicago, Ill.

The bulletin proposes a definite wartime safety program to be used by teachers. Procedures are set up which each teacher can plan, construct, and adjust according to his or her own emergency. Suggestions are offered on what to do during an air raid; facts are given about accidents, about the inspection of school buildings, about pupil activities in wartime, and about curriculum planning for safety. Suggestions are made for implementing protection and for intensifying the safety program to meet emergency needs.

Proprietary, Auxiliary, and Supervisory Service

Paper, 40 pages. National Board of Fire Underwriters, 85 John St., New York, N. Y.

This pamphlet provides revised standards for the installation, maintenance, and use of propriety, auxiliary, and local protective signaling systems. This service assures performance of watchmen patrols and the operative condition of automatic sprinkler systems, automatic fire-alarm systems, and other systems for the protection of life and property.

Penetrating Seal-O-San locks out dirt
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ANNOUNCE JANITOR-ENGINEER SCHOOLS

June 1–3. Junior College, Kansas City, Kans.

June 10–12. Central Intermediate School, Wichita, Kans. L. W. Parker, Topeka.

June 15–17. Junior High School, Dodge City, Kans.

June 15–20. University of Minnesota, Minneapolis. Thomas A. H. Teeter, Minneapolis.

June 16–19. Iowa State College, Ames, Iowa. L. W. Mahone.

June 22–26. Fourth Annual Short Course for School-Building Service Employees, Teachers College, Columbia University, New York. H. H. Linn, director.

SCHOOL-BUILDING CONSTRUCTION

Dodge reports that during the month of March, 1942, contracts were let for 211 educational buildings in states east of the Rockies. The contract cost was $10,729,000.

In 11 states west of the Rockies, contracts were let for 16 school buildings, at a total reported cost of $1,348,090. Additional projects in the number of 48 were reported, at a total estimated cost of $1,624,287.

PUBLIC DEFENSE WORKS

During the month of March, contracts were let for 210 school buildings classified by the United States Government as defense public projects. The proposed cost will be $12,325,693.

Pupils March to Safety
As Kinston School Burns
Teachers Get 600 Children
From Building Without
Panic; $100,000 Loss
Fast Work
STANDARD
Fire Alarm Systems
Specifically designed for school installations, Standard Systems are offered in two types: the Standard Supervised Master Code System, and the Standard Unsupervised System for smaller schools.

The above news story appeared in the "News and Observer," Raleigh, N. C.

ANOTHER TRIUMPH FOR STANDARD FIRE ALARM SYSTEMS

● **Six hundred children saved by a warning from their *Standard* Electric Fire Alarm! Marching from their classrooms in perfect fire drill order, the pupils of the Kinston (North Carolina) public school escaped a serious calamity as their school was razed by flames.**

No school—large or small, new or old—is immune. *Standard* Electric Fire Alarm Systems provide the ultimate in dependable, fool-proof protection. For safety's sake, make a careful check of your school's fire alarm system *today*. If it is not an effective, modern system call in a *Standard* sales engineer. He will bring you practical ideas on how to modernize—at moderate cost. For complete information write—

"Standard Makes Every Minute Count"

THE STANDARD ELECTRIC TIME COMPANY

81 LOGAN ST., SPRINGFIELD, MASS. BRANCH OFFICES IN PRINCIPAL CITIES

AVIATION EDUCATION IN AMERICAN SCHOOLS

(Concluded from page 17)

people must know the basic principles of flight. In many cases it means that secondary schools will establish elementary flight-training centers. Possibly these centers will be used only for gliding and soaring as opposed to power flight. The development of this program as well as that of model building and flying will require large sites in connection with our schools, possibly in the country. This development must come with rapidity, especially since we are at this moment many years behind the program in enemy nations.

Speed an Essential

Every boy and girl graduating from high school from this time on should have a background of the basic concepts of aviation and flight. This means an all-out program of teacher training this summer. The materials which this project will make available in the shortest possible time will furnish basic material for this training program. In the meantime it is the duty of each individual school system to make plans and prepare the way for the immediate institution of a teacher-training program. There must be no question but that this program of aviation training will be instituted in the schools beginning in September, 1942, a program which will involve every boy and girl.

Since October, 1935, Germany has decreed the teaching of aviation from kindergarten through secondary school. Monthly magazines entitled "Luftfahrt und Schule" (aviation and school) have been distributed to teachers. Textbooks have been prepared, and these are studied by all pupils in the German schools, on the physics of aviation, fundamentals of aviation, aviation in modern language teaching, aviation in German and history teaching, aviation in biology teaching, model building, and the chemical and physical fundamentals of air defense. Such teaching has been carried on in other countries, including Italy, Japan, and Russia. It will not be an easy job for the public schools of the United States to catch up to this extensive program, but we not only must catch up to it but we must surpass it in the shortest possible time.

The needs in aviation education in the United States cannot be met except as all educational agencies address themselves to the problem and place the proper emphasis upon aviation as a science and aviation as an influence in our social, economic, and political lives. Textbook writers may be expected to introduce more aviation material into their texts. Teachers will be lagging far behind who do not use worth-while aviation materials in classroom instruction. Curriculum makers will find it advantageous to build units of work around aviation, and guidance workers will be more helpful if they learn all about the vocations that aviation has brought to the fore.

Aviation education is not a subject to be taught. It is a force in human living that must be considered with all its ramifications in all teaching areas. This does not call for an undue stress on aviation in teaching, but it does point to the need for giving aviation its rightful place among the forces which determine man's destiny.

OKLAHOMA SCHOOL BUSINESS OFFICIALS HOLD FIRST MEETING

The Oklahoma Association of Public School Business Officials held their first annual meeting on April 3 and 4, in Oklahoma City.

Mr. Frank R. Pauly, of Tulsa, gave a talk on "An Insurance Program for the School Board," in which he brought out the proper way of writing an insurance policy so as to get the maximum protection at the least possible cost. Mr. Martin J. Phillippe, of the state department of education, discussed transportation problems, particularly those which will affect the schools during the next school year.

Mr. Olaf Chitwood, of Guthrie, acted as chairman of the Round-Table Conference on Finance and Accounting. Mr. John W. Prigmore, of Oklahoma City, spoke on the subject, "Preparation and Application of the School Budget." Mr. Charles G. Morris, assistant state examiner, talked on "Balance Sheets and Estimates for Budget-Making Purposes." Mr. R. F. Carroll, Enid, discussed the subject, "A Uniform System of Accounting." This round table proved very helpful and will eventually lead to a more uniform system of accounting in the state's schools.

Mr. J. B. McConnell, purchasing agent for the Tulsa school board, was chairman of the round-table conference on Specifications, Tests, and Purchasing. The discussion centered around the purchasing and testing of roofing materials, paint, duplicating paper, and various school supplies.

The association was honored by having Mr. Herbert G. Mitchell, of Dearborn, Mich., as banquet speaker. Mr. Mitchell, speaking on "Cooperation of School-Business Officials," emphasized that much good might be accomplished in the state through the cooperation and exchange of ideas with fellow board members. He pointed to the national association whose success has been attributed to the cooperation of its members.

Mr. C. F. Aurand, of the Bureau of Priorities Field Service, speaking on the subject of "Priorities and the Schools," said that two items, typewriters and athletic equipment, do not come under the A-10 rating under Rating Order No. P-100. Dr. John F. Bender, of the University of Oklahoma, in an address, on "Needed Improvements in Public School Business Administration," said that the university is giving the students training in accounting and business management of the schools. He stressed that this organization can do much toward improving the business administration of the public schools of Oklahoma.

New officers elected are: president, Charles Ethington, Enid; vice-president, W. A. Melton, Tulsa; treasurer, N. L. George, Oklahoma City; director, T. E. Garrison, Ardmore.

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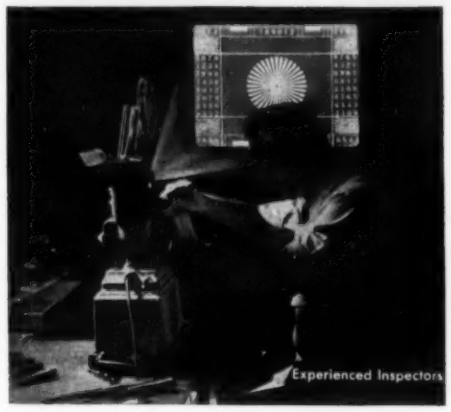

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2. There is ample opportunity for using every Ampro for projecting 16mm. films for Civilian Defense, War-time training and the circulation of important information.

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Here Is How DRAPER SHADES Contribute to Better National Health

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School Officials — Send TODAY for this manual of window shade construction and installation principles.

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Blackboard isn't a substitute for paper any more than paper is a substitute for the blackboard—but now, more than ever before, it's your duty to see that your teachers use the blackboard whenever the blackboard is the more efficient means of doing a teaching job. We've all heard a lot about "visual education" these past few years, but isn't it a fact that the blackboard has always been our BEST and most ECONOMICAL single aid to visual teaching?

And if your blackboards aren't all they should be, NOW is the time to consider replacing or refinishing so that they'll be ready for use next fall. Our advice is yours without obligation.

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Phenolic types of resin available in this country, are fast becoming a necessity in the production of various Army commodities and may be curtailed at any time.

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Physical Fitness *Antidotes* a War of Nerves

MIDLAND CHEMICAL LABORATORIES
INCORPORATED
Dubuque, Iowa, U. S. A.

AIR-RAID PREPARATIONS IN A MID-CONTINENT SCHOOL SYSTEM

(Concluded from page 45)

At the sound of the air-raid alarm, the air-raid fire squad mans the fire extinguishers and other fire-fighting equipment and is prepared to carry out such steps in fire prevention and fire fighting as may be necessary. The air-raid traffic squad directs evacuation of classrooms and other parts of the building, and supervises the orderly movement of pupils from evacuated parts of the building to the refuge spaces. This squad also assists teachers in keeping calm order in the refuge and guards all exits and entrances to the refuge. In case of a fire alarm while pupils are in the refuge, this same air-raid traffic squad conducts the pupils out of the building to places of safety as in ordinary fire drills.

After studying the recommendations of air-raid drill authorities it was decided that no pupil, teacher, or other worker in any school was to get wraps or any other belongings during an air-raid drill if doing so required his going to a different part of the building before reporting to the air-raid refuge after the alarm has sounded. It was agreed in certain *elementary* schools "to permit children in home rooms to get their wraps on the way to the shelter *provided* wraps may be picked up on the way out of the room without stopping the steady line of evacuation from the room, and *provided* the children do not stop to put on wraps until they are at their assigned places in the air-raid refuge."

Activities for Raid Shelters

Definite activities for large groups of children confined in air-raid refuges were recommended by the committee. It was suggested that committees of teachers and pupils carefully plan and prepare for such activities and practice them at the time of air-raid drills: (*a*) community singing, (*b*) storytelling, (*c*) amateur shows, etc.

Every building has been cautioned again and again "not to use lights (except covered flashlights in case of emergencies) after it begins to grow dark outside." And "not to plan or permit sad or 'long-faced' speeches or any other depressing activities."

Since the beginning of the war each school has been warned that "it is of utmost importance that each school institute immediate measures to guard against sabotage." Each school now provides for a *thorough* inspection of the premises and buildings before school in the morning, during the noon hour, and before closing the building at night. Pupils, teachers, and all other workers in the building are alert to the presence of unidentified strangers in the building. Such strangers must in every case be conducted or reported to the principal's office. (The use of hall monitors has been extended to aid in this matter.) The city police department is notified without delay of any stranger who fails to identify himself properly to the school officials or whose presence gives cause for suspicion.

Three days after the air-raid drill plans were inaugurated directions were distributed for a city-wide school air-raid drill. At a time not known to anyone outside the central office, all schools were called and given the code signal which set the air-raid drill in action. Within 10 minutes after the signal was given at the central office all children in all schools were in their assigned air-raid shelter space.

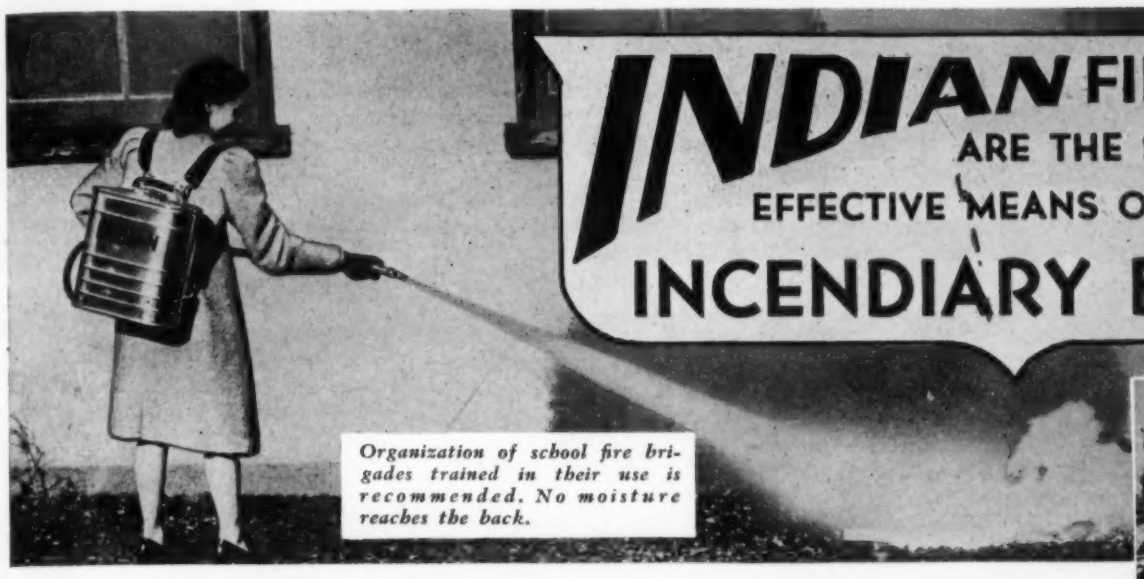
As a further precaution, after the first city-wide drill was conducted, a careful follow-up of drills in each building has been made by inspectors who investigated the following: (1) Main Refuge: (*a*) location, (*b*) water, (*c*) toilets, (*d*) window protection, (*e*) exits; (2) Alarm System; (3) Building Personnel in Charge of Drills; (4) First-Aid Facilities; (5) General Conduct of the Drill, etc.

Along with these careful arrangements to take care of any children caught at school by an air raid, arrangements have been made in most schools to send children home if ample warning is sounded of an impending raid.

At any rate, the Omaha school authorities did not want to be caught napping. From the very first the committee, which was later christened the Omaha Public Schools Council for Civilian Defense, planned and acted as if air raids were an imminent possibility in Omaha. The Omaha schools are ready. In the meantime, education, including rationing, etc., goes on as usual.

LA GRANGE BOARD REORGANIZED

The board of education at La Grange, Ill., has reorganized, with Ira W. Schmidt re-elected as president for a three-year term. Other members re-elected for similar terms were B. C. Peterson and H. D. Livezey.



INDIAN FIRE PUMPS ARE THE SCHOOLS' EFFECTIVE MEANS OF FIGHTING INCENDIARY BOMBS!

Organization of school fire brigades trained in their use is recommended. No moisture reaches the back.

International News

This shows what fire and demolition bombs did to a London school. America must prepare; **INDIAN FIRE PUMPS** are your best fire defense. Always use a spray—never a stream on a bomb. Adjustable nozzle throws fine spray for bomb control work, or solid stream for extinguishing fires set by sparks from incendiary bombs.

AIR RAID PRECAUTIONS SHOULD INCLUDE AN AMPLE SUPPLY OF THESE EXTINGUISHERS

5 gal. rust proof tank carries by handle or slung on back. Strongly built for years of service.

Air raid precautions are not complete unless they include **INDIAN FIRE PUMPS**—the officially proven, fast way to extinguish "incendiaries." These bombs burn at around 3300 degrees and quickly penetrate wood or iron. Sand simply acts as a smothering agent permitting bomb to continue burning surface underneath. The spray of an **INDIAN** extinguishes the bomb from a safe distance. **INDIAN FIRE PUMPS** use only clear water—no chemicals. Civilian Defense organizations are equipping rapidly with **these famous fire fighters.**

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Lawrence, Kansas

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Authorized Sales Representative in your Locality

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NEW YORK SAN FRANCISCO OAKLAND

COOPERATIVE SUPERVISION AS A PROCEDURE IN PROBLEM SOLVING

(Concluded from page 16)

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After all, they must expose themselves to more possibilities, give consideration to more alternatives than they will employ. I am reminded of a story about two Negroes in time of the draft during the last war. One asked the other if it were true that "de white folks takes you across the ocean and makes you fight." The other shook his head slowly and said, "No, dey don't *make* you fight. Dey just takes you where the fightin is and you uses yo' jedgement."

FOR NEXT FALL — WANTED 250,000 SCHOOL TEACHERS

(Concluded from page 18)

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STANDARD SPECIFICATIONS FOR SUPPLIES AND EQUIPMENT

(Concluded from page 22)

works with an enforceable specification. The schools receive suitable materials at a reasonable cost, and the taxpayer receives full value for his dollar.

Over a period of months or years, a complete file of specifications can be built up from routine daily work. As need arises, the required time should be devoted to the formulation of an adequate specification, and a copy should be placed in the card file for future reference. A small amount of extra time spent in developing a file of information will pay big dividends. Changes in methods of manufacture, model numbers, prices, etc., will occur inevitably, but the basic work will have been done and revisions are comparatively easy.

War conditions should not be permitted to interfere with the orderly development of good specifications. Bids can always be taken on the standard specification, with the understanding that the dealer may offer his closest alternate if unable to comply. Schools are glad to cooperate fully with the war-effort program in the conservation of essential materials, but there is no necessity for discarding standards of satisfactory type and quality.

THIS BUSINESS OF SCHOOL FEEDING — XII

(Concluded from page 36)

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There is a great task ahead — and an important task — that confronts the Office of Price Administration. There are many and divergent interests that must be reconciled. My prediction is, that some method of fixed returns will be the final method of price control that will be decided upon. This will place the marginal dealer at a disadvantage while placing the dealer at the other extreme at a great advantage. Such, however, is always the case and this can be no exception. Up to the present time no effective method of price control has been developed and it is very questionable if prices lower than the prevailing could be fixed without very serious injustice to many small wholesalers and merchants. This is the time, however, to start the control of next year's pack. As previously stated, commitments have been made on many items, but the ultimate price can be determined approximately by fixing profits allowed plus actual cost of handling. A very complicated system would result and would require research and an army of checkers, but it would be based on a degree of actual cost and not be merely the prevailing price on the day the wand was waved. As purchasers and as citizens, we cannot underestimate the tremendous task of preparing a price law. We can be certain, however, of two things — that sincere efforts will be made to control food prices, and that food prices will continue to creep upward during the present emergency.

● FASSETT A. COTTON, a former state superintendent of public instruction in Indiana, died in Anderson, Ind., on April 3. He was state superintendent during the period from 1903 to 1909.

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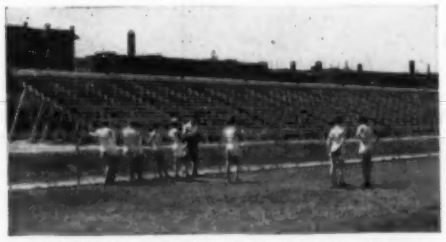

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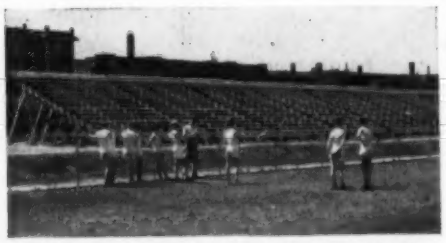

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GEARING THE SECONDARY SCHOOL INTO THE WAR EFFORT

(Concluded from page 14)

Spanish courses as an aid to an understanding of our southern neighbors and to building unity of the Americas.

Most Important of All!

8. *Priority in Teaching Democracy.* Hitler is making Nazis with every means at his disposal. He is preparing boys to die as soldiers, girls to bear more soldiers. We give boys and girls freedom, democracy, and life, but we do *not as we should*, train them to realize the benefits of these gifts of democracy and the obligations that are entailed or go with them. Hitler is making fanatics. We should make believers. *Our democracy, our heritage of freedom, is worth getting excited about.* Hitler's educational system is an *even greater menace than his army or his Luftwaffe.* When Hitler's present fighting force is beaten, there behind the military array we will *see a younger army,* even more *fanatic* than the *soldiers.* This army, too, must be vanquished before Hitlerism is destroyed. That fact is illustrated in Gregory Ziemen's "Education for Death" which shows Hitler's educational methods.

I have given you several educational priorities, namely: (1) training workers for production in the factory, (2) building morale, (3) creating good health, (4) teaching the aims, issues, and progress of the war, (5) learning to understand the Latin-Americas, (6) teaching skills needed for the production of food and service, and (7) the teaching of the meaning of democracy. In your schools there will be certain limitations and certain capabilities to carry out the various educational priorities. Each of you will know how to carry on America's war effort in your own schools.

We must learn, first of all, to speed up the tempo of our decisions and actions in education. Properly accustomed to reaching decisions only after extended discussions, long-time research, and mature reflection, education cannot now operate on a peacetime basis. Many school administrators feel as if it is too late to make a change during the current school year — they will do it next September — from last December to next September is a long time to gear your school to the war effort. Adolph Hitler said on December 10, 1940, "Two worlds are in conflict . . . one of these two worlds must break asunder." That struggle has begun, fellow teachers.

Never was there a time when the *profession of education* carried such heavy *responsibility!* Never a time when its members might feel a greater *pride* in their work! And never a better opportunity to *serve* their nation, and tear asunder Hitler's world.

● The school board at Marion, Mass., has reorganized with CATHERINE L. KREMP as president; CHARLES L. WASHBURN as vice-president; and JAMES R. DOUGALL as secretary.

Holtzer-Cabot

LABORATORY PANELS

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Throughout America leading educational institutions equipped with these Laboratory Panels testify to the high standard of materials and workmanship. Their flexible distribution of power performs valuable service to instructors and students in the laboratories of vocational schools, teacher's colleges, high schools and universities.

A typical system consists of power supply and distribution panels, storage battery, motor generator set, and special table receptacles. Various voltages of direct or alternating current are distributed from the battery, motor generator and transformer to the students' tables and instructor's bench.

Write for Bulletin SB-103
125 Amory Street, Boston, Mass.
Offices in Principal Cities.

The Holtzer-Cabot Electric Company

SCHOOL ADMINISTRATION

♦ Johnston, R. I. Under a new policy of the school administrative staff, the annual promotion system has been substituted for the semi-annual plan which has been in operation in grades one to six. The junior high school grades are not affected at the present time but will automatically become part of the plan at the end of three years. All children in the grades affected have been given intelligence and achievement tests and reclassified according to the results. While a small proportion of the pupils were found to be accelerated one half grade, a number of them were sent back to repeat the half year under an enriched program.

♦ Boston, Mass. The teachers have won a 12-year fight to have the size of classes reduced from 42 to 35, following the adoption of a resolution by the school board. It means that 85 additional teachers will be appointed next year.

♦ Russell, Ky. The school board has recently approved an emergency war program, intended to speed up the high school course. Students will be graduated when they have acquired the necessary 16 credits, regardless of the time spent in school. Additional courses, introduced to aid in training youth for the war effort, are telephone radio communication, elementary navigation, internal combustion engines, and general shop courses.

♦ High schools and colleges must train more young men in mathematics and allied subjects in order to fill the need demanded by the expanding air force, according to a recent report on a survey made by a subcommittee headed by Prof. William L. Hart, of the University of Minnesota.

Professor Hart was in charge of a survey of the ground school courses offered in pilot and nonpilot courses in the air corps flying training system. The purpose of the survey was to outline preparatory courses to be offered in the colleges and universities.

♦ La Salle, Ill. The La Salle-Peru High School, in cooperation with the University of Illinois, will conduct free extension classes in radio engineering and technique. The course is a refresher course for "ham" radio operators and others interested, as well as an introductory course for newcomers, who desire preparation for the army or navy, or for work in defense industries. The course will be given three evenings each week for 16 weeks. Equipment will be furnished by the university, and instruction will be given by local experts.

♦ Joplin, Mo. The school board has voted to establish a full 12 weeks' summer course in the Junior College. Under the plan, a student carrying a full schedule, will complete his two-year junior college course in two summer sessions and two winter semesters. The 12 weeks' period will count as a full semester, or a third of a year's credit.

♦ Los Angeles, Calif. A new course in military and industrial mathematics has been introduced in the four major high schools. Plans have also been made to strengthen the mathematics course in the graded schools to meet the needs for men with technical mathematical training.

♦ The New York State Senate has approved a resolution of Senator Frederic R. Coudert, Jr., continuing for another year the Rapp-Coudert committee, investigating subversive activities in the New York city schools. The resolution appropriates $50,000 which is to be devoted entirely to the continued school inquiry. Senator Coudert declared that it is necessary to continue the investigation because the loyal elements in the school system would be discouraged if it were dropped, while subversive groups would be encouraged to expand their activities.

♦ Gonzales, Tex. The public schools are participating in a music program which is applicable to all grades and all pupils. All grade pupils receive instruction daily in public school music under trained teachers. In the junior high school, groups of students have been formed, to receive one hour's daily instruction in choral and glee club singing. Band instruction is also offered in the upper elementary grades, the junior high school, and the senior high school. All Negro pupils in grades seven to twelve inclusive receive daily instruction in public school music. It is estimated that more than 75 per cent of the students are reached through the music program. Three full-time instructors are employed, as well as two teachers who give half-time to the work.

♦ The high school journalism department at Falfurrias, Tex., under the direction of Mr. Hyman Teague, has made rapid progress during the past two years. Journalism was offered as a high school subject for the first time last year and the school turned out one of the best duplicated high school papers in South Texas.

During the present school year "Heart's Delight," the high school paper, was rated the best newspaper of high schools in the Lone Star State. During the year the International Honorary Society of High School Journalists sponsored a defense issue of high school papers of the nation, in which representatives of 2500 member schools participated. In the group of ten participants, two were girls from the Falfurrias High School. The local schools are extremely proud of the results obtained in the journalism classes.

♦ Joplin, Mo. The board of education has voted to establish a 12 weeks' summer course at the Junior College, on a tuition basis. Students carrying a full schedule at the school will be able to complete the two-year junior college in two summer sessions and two winter semesters.

♦ Brigham, Utah. Beginning with the school year 1942–43, the Box Elder Junior and Senior High School will be operated as one high school, with an upper and lower division, all under the direction of one principal. In the past, two separate schools were housed in the same building, each under the direction of a separate principal.

After The Meeting

That Was Different!

A pupil was having trouble with punctuation and was being called down by the teacher.

"Never mind, sonny," said the visiting school-board member, "it's foolish to bother about commas. They don't amount to much anyway."

"Don't they," replied the teacher. Then calling to one of the pupils she ordered the boy to write on the board this sentence: "The president of the board says the teacher is a fool."

"Now," she continued, "put a comma after 'board' and another after 'teacher.'"

Limited Edition

The doctor was examining school children. One of them was found to be underweight.

"You don't drink milk?" the doctor asked him.

"Nope," was the reply.

"Live on a farm and don't drink milk at all?"

"Nope. We ain't hardly got enough for the hogs."—*The Slaton Slatary, Texas.*

A Good Introduction

A rural school-board member, who introduced a visiting educator to a rural group said: "I have never seen or heard this gentleman. If he is no good as a speaker, we might as well have his talk right away and have it over. If he is good, you will want to hear him right quickly and enjoy him. I give you Mr. Blank."

Mother's Son

It was the day of the school concert, and the audience consisted mainly of mothers, proud or envious, according to the parts that their children were playing.

One small boy mounted the platform. Striking a bold attitude, he began: "Friends, Romans, countrymen, lend me your ears!"

Whereupon one of the mothers turned to her companion.

"There, that's the Jones's boy," she said tartly. "He wouldn't be his mother's son if he weren't trying to borrow something."

She Had Her Way

A school was pursuing its placid course when a woman appeared in the hall carrying a hammer, and calling loudly for Miss Primary. Miss Primary duly appeared, but at the sight of the hammer beat a hasty retreat to her room, where she secured the door.

The principal now came on the scene, and suggested that it might be better if they talked matters over in her private room.

"No fear," was the reply. "I've come here to use this hammer, and I'm going to use it. My Johnny's got the seat right out of his pants."

"But surely," urged the bewildered principal, "Miss Primary did not do that?"

"No," said the irate parent, "and I'm not blaming anybody, but I'm going to knock that nail down."

School Buyers' News

Spencer Microfilm Reader

The Spencer Lens Co., Buffalo, N. Y., has announced its new "Microfilm Reader," a scientific instrument designed to visualize books, newspapers, and documents reproduced on 35 millimeter film.

Libraries, schools, and other institutions will find the Microfilm reader valuable. It is the answer to the needs of the individual or institution for a convenient, low-cost means of visualizing the records of mankind. The instrument is fitted with an iris diaphragm in the objective, enabling the user to adjust the light to his own comfort. A replaceable screen of tinted paper renders the projected image of agreeable color and contrast.

Complete descriptive literature is available.

New Bell-Howell Films

The Bell-Howell Co., 1801 Larchmont Ave., Chicago, Ill., has announced a number of new films for wartime uses. These are listed as follows:

Garden for Victory, by J. H. Burdett; *Practical Instruction in First Aid* (6 reels) by Dr. Jacob Sarnoff.

Both films are available in 8 and 16mm., colored and black-and-white film.

Higgins Issues New "Techniques"

For many years artists and teachers of art have enjoyed and used "Techniques," a unique book, illustrating the uses of Higgins American drawing inks.

The new edition fully meets the standards of its predecessors. It provides an inclusive series of pictures in pen, brush, wash, scratchboard, spatter, stipple, imitation wood block — in fact, all of the valuable techniques used in present-day art. In brief, the book is a notable collection of the best work of the finest artists now before the American public.

Teachers and students of art will find the book not only helpful but a new bit of evidence that beauty is still the central objective of American art and artists. The publication which sells at 50 cents per copy, will be sent free to any instructor of art who requests it on school stationery, of Higgins Ink Co., 271 Ninth St., Brooklyn, N. Y.

Stage Setting Round-the-Corner Track

The announcement by Vallen, Inc., of a Round-the-Corner Track presents a solution to a difficult problem in stage settings. Adaptable for folding doors or curtains, it solves the problem of getting around corners, which has confronted designers and architects for many years.

The Vallen Round-the-Corner Track

For stage setting in schools, besides being a convenience, it offers a saving. By means of this track a curtain can be carried straight across the front of a stage, turning a corner and folded along wall, or if painted differently on both sides and on a continuous track, it can be moved from front to rear of the stage, exposing the opposite side and providing an entirely new setting.

For complete details school authorities may write to Vallen, Inc., Akron, Ohio.

Insulation Protects School Buildings

The Johns-Manville Corp., 22 East 40th St., New York City, has issued an interesting illustrated pamphlet, discussing the advantages of insulation in commercial, institutional, and educational buildings.

The booklet entitled, "Owners Say: An Investment That Pays for Itself," discusses the winter fuel-saving possibilities and year-round comfort features of rock wool insulation. It describes the scientific method used in insulating existing schools and other buildings by the skilled maintenance workers located in branch cities throughout the country.

Mr. Burr L. Chase Appointed President

Silver, Burdett & Co., New York City, has announced the appointment of Mr. Burr L. Chase as president and treasurer. John B. Stigall was named first vice-president, and Charles E. Griffith as second vice-president.

New Catalog of Norcor Metal Furniture

The Norcor Mfg Co., Green Bay, Wis., has issued its 1942 catalog, illustrating and describing its new and complete line of portable seating and school furniture.

The catalog lists metal-and-wood folding chairs, auditorium seating, standard steel movable desks, Deluxe movable desks, tablet-arm chairs, grill bottom desks, straight-posture chairs, and a series of special juvenile chairs.

A copy of the catalog will be sent to any school official upon request.

DEFENSE SCHOOL BUILDING SPECIFICATIONS

New Policy Conserves Materials

A radical change in the policy of the Federal Works Agency, in its control of defense school-building construction, has been put into effect for the purpose of fully conserving steel and other critical materials needed for arms production.

The original policy announced about February 13, by the Acting Administrator of Federal Works, contemplated the limitation of school buildings to two-story masonry structures and one-story wooden structures. Wood was to be used where the need appeared to be purely temporary, except that masonry would be recommended in all areas subject to enemy action.

Specifications were worked out for a basic masonry unit with concrete foundation and floor, set over a gravel fill. Sixteen-inch concrete pillars would support a concrete roof. The walls might be of concrete, cinder block, or brick. Windows would be of wood, set flush with the outside of the wall.

These masonry structures were to be fireproof and bomb resistant. In the two-story buildings, concrete stairs, or ramps, would connect the floors as required. These would not be wall-bearing structures.

Standard widths up to 58 ft. and variable lengths would make it possible to arrange basic units like dominoes so as to provide the amount of space needed. While the applicant would determine the details of interior arrangement, a center-corridor plan would be followed along the lines of the pillars.

Similar specifications were worked out for two types of wooden structures, one purely temporary, and the other fire resistant and more permanent. Auditorium-gymnasiums required for schools would be built of wood and connected to the basic masonry buildings by covered passageways.

It has been determined to depart freely from these general policies and to study every project separately in order to find the type of construction which will be best and most economical in materials and man-hours of labor.

NEW STANDARDS FOR CRAYON AND CHALK

The National Bureau of Standards, Washington, D. C., has approved new simplified standards covering various types of crayons, chalk, modeling clay, etc.

The standards were prepared by a committee representing the crayon, water color, and craft industry and cover for the most part crayons used by educational institutions.

A simplified list of types of containers and packages for these products has also been adopted.

NEW BUS RATIONING PLAN

The Superior Coach Corp., Lima, Ohio, has issued an eight-page bulletin entitled, "How to Order Buses Under the New M-100 Rationing Plan."

The bulletin summarizes the major points of the WPB truck rationing order, explains the procedure involved in applying for new truck chassis, lists the addresses of local allocation offices, and outlines six suggestions for submitting applications.

Free copies of this bulletin may be obtained by any school official.

THE BLACKBOARD COMES BACK

The high cost of paper combined with the probable shortages in many school types of writing papers, leads the Evansville, Ind., schools to recommend the wider use of blackboards. The eight points recommended to teachers as means of increasing present teaching efficiency suggest permanent values of the ancient, but ever useful classroom writing boards:

1. The blackboard may be used as a means of illustrating important and difficult points.

2. The blackboard may be used as a means of giving directions for pupil activities.

3. The blackboard may be used for practice in beginning handwriting.

4. The blackboard may be used for graphs, charts, and diagrams to which new data are to be added or on which data are to be changed from time to time.

5. The blackboard may be used to create classroom atmosphere — for the seasonal decoration of the classroom in color.

6. The blackboard may be used as a means of developing the pupil's ability to make effective use of illustrations when talking before the group.

7. The blackboard may be used for sketching and drawing as a means of free expression and to relieve the fatigue of desk routine.

8. The blackboard may be used as a means of revealing pupil difficulties not readily evident from an observation of their seatwork.

ANNOUNCE TWO WAR FILMS

The Office for Emergency Management Film Unit, Washington, D. C., has announced two new war films, (1) Tanks, and (2) Building a Tank.

These films are of the 16mm. sound type and show the processes of manufacture. Sound prints in the 35mm. type are also available.

The sound prints are obtainable from the OEM Film Unit, 1600 Broadway, New York, N. Y.

QUALITY OF THE BOARD MEMBER

The Council of Parents and Teachers, at Portland, Ore., has set up the qualifications that should be sought in a school-board member in the following language:

"We all agree that the respect and confidence of the public and a genuine interest in public education are major requirements. Sufficient education to evaluate modern educational standards and the will to keep our schools on a par with cities of comparable size, coupled with the desire to work toward the betterment of public education and the welfare of children are also stressed.

"We are all in accord, too, that the ability to stand by one's convictions is a character trait which we are all desirous of finding in a candidate for this important position. We feel that no one who is the representative of a group or clique and who would use the office as a means of gaining contacts or personal favors is a desirable candidate."

BRATTLEBORO REMODELS SCHOOL

The teachers and pupils in West Brattleboro, Vt., during the past school year, occupied a remodeled school building which was greatly enjoyed. Construction work was started on June 14, 1941, and on September 14 the building was occupied.

The building, known as the Academy School, has a history running back to 1853. For many years it was organized and operated as a boarding school for pupils in the vicinity. At present the building houses 150 pupils and six teachers. The remodeled building has many improvements which render it more comfortable for the occupants and more efficient in operation. The old stairs have been replaced by double flights with an easier grade; the lavatories and toilets have been removed to the first floor, allowing ample basement space for a dining room, a kitchen, and two rooms for pupil activities. In addition there is ample room for the boiler and coal storage. The halls have been widened and the classrooms enlarged to make them standard size. An assembly hall with a stage has been provided. Mrs. Maude Weaver is principal of the school.

TOPEKA REORGANIZES ADMINISTRATION

The board of education at Topeka, Kans., has revised the administrative organization of the school system, with the adoption of the unitary system. Under the new administrative plan, which becomes effective July 1, when Kenneth McFarland takes over his new duties, the superintendent becomes the chief executive, and will be held solely responsible to the board for all departments of the school system. The only officers besides the superintendent reporting directly to the board will be the treasurer, the auditor, and the attorney.

The change brings about new titles. E. E. Salle, business manager, will have the title of assistant superintendent in charge of business affairs. G. C. Kempton, superintendent of buildings, will serve in the combined department with the title of director of plant operation and maintenance. All special services have been placed in one administrative group, under the direction of Strong Hinman, who will have the title of assistant superintendent for health and special services. He will also head the physical education work, and will be directly responsible to the superintendent. W. N. Van Slyck, principal of the high school, will fill the combined position of high school principal and director of secondary education.

COMING CONVENTIONS

May 11–12. American Association for Adult Education, at West Point, N. Y. M. A. Cartwright, New York City, secretary.

June 26–27. University of Chicago Business Education Conference, at Chicago, Ill. H. G. Shields, University of Chicago, secretary.

June 27–July 2. National Education Association, at Denver, Colo. W. E. Givens, Washington, D. C., secretary.

July 2. National Association of Public School Boards, at Denver, Colo. Paul J. Wortman, Dayton, Ohio, secretary.

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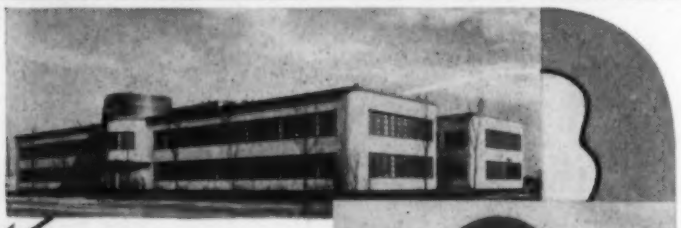

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